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ABSTRACT

This report contains a summary and analysis of public response to the Water Resources Council proposed principles and standards and its accompanying draft environmental impact statement for planning the use of water and related land resources as well as planning and evaluating water and related land resources programs and projects. Both written and oral statements (4,782) received in public review from interested citizens, persons speaking on behalf of organizations, and elected officials are compiled in the summary/analysis. Part I records quoted and summarized excerpts from the public record as well as general responses. Part II provides an analysis of public comment on issues identified in the public record. Generally the issues fall into the following major areas: (1) Implementation of the Principles and Standards, (2) Objectives, (3) Criteria for plan formulation and evaluation, (4) Program coverage and coordination, (5) Output and beneficiaries, (6) Cost sharing and allocation, and (7) Environmental statement. The treatment of each issue consists of a statement of the issue as proposed in the Principles and Standards, the frequency distribution of the views and comments on various sides of an issue, and a summary of the comments on one or both sides. Principles and Standards appeared in the Federal Register, December 21, 1971, Volume 36, Part II (ED 058 070). (BL)

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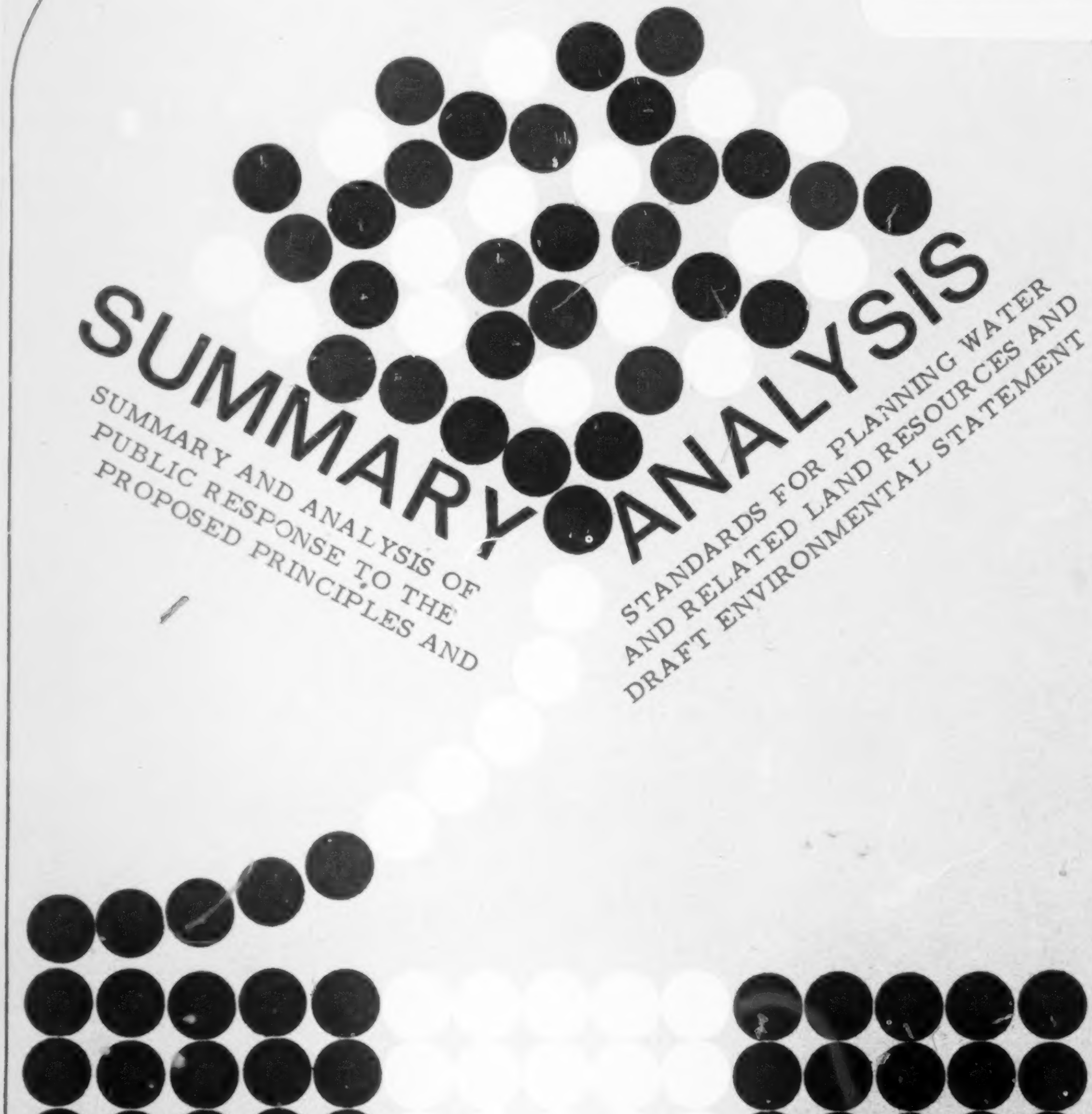

SUMMARY ANALYSIS

SUMMARY AND ANALYSIS OF
PUBLIC RESPONSE TO THE
PROPOSED PRINCIPLES AND
STANDARDS FOR PLANNING WATER
AND RELATED LAND RESOURCES AND
DRAFT ENVIRONMENTAL STATEMENT

1

JULY, 1972

UNITED STATES WATER RESOURCES COUNCIL

W. DON MAUGHAN, DIRECTOR

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Our particular thanks go to the entire secretarial staff of the Water Resources Council. They worked diligently throughout each phase of the report, from opening and sorting the mail which comprised the written public response, to typing and proofing this Summary/Analysis.

WRC

UNITED STATES WATER RESOURCES COUNCIL

SUITE 800 • 2120 L STREET, N.W. WASHINGTON, D.C. 20037

August 1972

FOREWORD

We appreciate the depth of interest shown in the Water Resources Council's proposed Principles and Standards for planning water and land resources and in the accompanying draft Environmental Statement as printed in the Federal Register on December 21, 1971, Vol. 36, Part II, pages 24144-24194.

The purpose of the 100-day review period announced in the Federal Register was to obtain the most comprehensive record and the broadest possible coverage of the views and comments of the interested public on the Council's proposals. The proposed Principles and Standards are for major Federal activities in water and related land resources and, when implemented, will be of major importance in determining the course of these activities for a number of years to come. Because of their far-reaching significance, the Water Resources Council believes that it has been extremely important to seek, and to carefully consider, the reactions of the interested public before the Council makes formal recommendations to the President for approval.

This is the Summary/Analysis of both the written and oral statements received from interested citizens, persons speaking on behalf of organizations, and elected officials, and it represents a first major step in the careful consideration of the views and comments.

At this stage we have not attempted to formulate revisions to the Principles and Standards. Instead, concerted effort has been made to objectively summarize and analyze the public response. Every comment received was given equal consideration and the rule "one man--one vote" was applied in the preparation of the

MEMBERS: SECRETARIES OF INTERIOR, AGRICULTURE, ARMY, HEALTH, EDUCATION AND WELFARE, TRANSPORTATION
CHAIRMAN, FEDERAL POWER COMMISSION – ASSOCIATE MEMBERS: SECRETARIES OF COMMERCE, HOUSING AND URBAN
DEVELOPMENT, ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY – OBSERVERS: DIRECTOR, OFFICE OF MANAGEMENT
AND BUDGET, ATTORNEY GENERAL, CHAIRMEN – COUNCIL ON ENVIRONMENTAL QUALITY, RIVER BASIN COMMISSIONS

Summary/Analysis. We did not believe it appropriate to merge into this step of the process the technical and policy considerations attendant in any final recommendations that the Water Resources Council will make, particularly where the public's views on an issue are sharply divided.

In compliance with the spirit and the intent of the National Environmental Policy Act, we have provided copies of this Summary/Analysis as well as copies of the entire public record to the Council on Environmental Quality.

A full appreciation and understanding of the views and comments summarized in this report require knowledge of the Council's proposed Principles and Standards. Copies of the Federal Register containing the Council's proposals are available from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22151. The Accession Number is PB-209 187, and charges of $3.00 for paper copy and 95¢ for microfiche copy have been established.

W. Don Maughan

W. Don Maughan
Director

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AVAILABILITY OF RECORD

"The record of views and comments received during the public review period, including a transcript of the hearing, will be maintained for public inspection at the headquarters of the Water Resources Council, 2120 L Street, N.W., Washington, D.C. 20037. Copies of the record, or portions thereof, will be furnished by the Council to any member of the public upon payment of the cost of reproducing the copies desired."

Federal Register, December 21, 1971.

HOW TO INSPECT THE RECORD

The record, including letters of comment and written and oral testimony, can be inspected during the hours of 8:15 a.m. to 4:15 p.m., Monday through Friday, at the headquarters of the Water Resources Council. Advance notice of your visit is not necessary but would be appreciated so as to allow for arrangement of facilities to meet the convenience of all members of the public who wish to inspect the record.

HOW TO OBTAIN COPIES OF THE RECORD

How: Send your request for copies indicating name of person presenting the statement and page numbers provided in Appendix II.

Where: U.S. Water Resources Council
2120 L Street, N.W.
Washington, D.C. 20037

Cost:

Copies made by photostat or otherwise, per page	$0.50
Certification of each record as a true copy	$1.00

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Receipt: A receipt for fees paid will be given only upon request. Fees paid for services actually rendered cannot be refunded.

I. GENERAL SUMMARY

1. INTRODUCTION

The Water Resources Council began its review of planning Principles and Standards in December 1968, to comply with the Water Resources Planning Act of 1965 which directed the Council to establish, with the approval of the President, principles and standards to guide Federal participation in planning the use of the Nation's water and related land resources and for planning and evaluating water and related land resources programs and projects.

In 1969, after a preliminary report of a special task force had been prepared, the Council held public hearings in Washington, D.C., and in various other locations across the country, to solicit views, recommendations, and comments on the preliminary report. The task force's preliminary report was also widely discussed and reviewed during late 1969 and early 1970 in various meetings and seminars, and by numerous organizations and individuals both within and outside of the Federal Government. In addition, the proposals contained in the preliminary report were subjected to extensive analytical testing during this period. After careful consideration of the final recommendations of the Special Task Force submitted in August 1970, the Council published proposed Principles and Standards for Planning Water and Land Resources along with a separate draft Environmental Statement on the proposed Principles and Standards in the Federal Register on December 21, 1971 (36 F.R. 24144).

In its Principles and Standards, the Council proposes a multiobjective approach to water and land resources planning. The Principles provide the framework for planning and the Standards provide for uniformity and consistency in planning.

Under these proposals, planning for the use of the Nation's water and land resources would be directed to improvement in the quality of life through contributions to national economic development, environmental quality, and, when directed, to regional development. In addition, the beneficial and adverse effects of an alternative plan on certain social factors would be displayed.

The Principles and Standards, when revised in light of the comments submitted for the public record and approved by the President, will replace the presently used policies and procedures which were approved May 15, 1962, and printed as Senate Document No. 97, 87th Congress, 2nd Session, together with Supplement No. 1 thereto, dated June 4, 1964, relating to evaluation of recreation benefits, and the amendment of December 24, 1968, to 18 CFR subsection 704.39, entitled "Discount Rate."

With publication in the Federal Register on December 21, 1971, the period of public review of the proposed Principles and Standards and accompanying draft Environmental Statement commenced. A total of 4,782 responses were received and the official public record is about 8,500 pages in length.

In addition to the comments relating to the substance of the proposals, the Council received over 500 letters requesting that additional public hearings be held to allow concerned citizens to voice their opinions. For example, many people from Grand Junction, Colorado, asked for hearings in the Grand Junction area. Several others suggested various major cities throughout the country as appropriate hearing sites.

Unfortunately, because of time and money considerations, the Water Resources Council was limited in the number of hearings it could schedule. In addition, the interest in the hearings was so widespread that it would have been impossible to choose even three cities which would have satisfied all those who wished to present statements. Therefore, the Water Resources Council chose to hold hearings in San Francisco, California, St. Louis, Missouri, and Washington, D.C., because these cities were centrally located in three geographic areas of the United States and were considered generally accessible to all who desired to be heard.

During the seven days (forty-six hours) of hearings, 206 people, some representing organizations, some speaking on their own behalf, presented their statements to the Water Resources Council. A total of 924 attendees were registered (222 in San Francisco, 190 in St. Louis, and 512 in Washington, D.C.). For the convenience of those wishing to present views, the Water Resources Council attempted to schedule persons speaking on their own behalf during the evening portion of the hearings, and persons speaking on behalf of organizations during the morning and afternoon sessions.

Public Hearing, March 20, 1972, Washington, D.C.

Because of the large public response to the proposed Principles and Standards, it was deemed desirable to prepare an objective summary/analysis of the responses received. At the request of the Council of Representatives of the Water Resources Council, an Inter-Departmental Work Group was formed to prepare the Summary/Analysis of the public response to the Council's proposals.

To accomplish this task, the members of the Work Group met for the first time on March 27, 1972, and began to review the public record. The Work Group members read each communication, identified issues, and recorded by State the first page number of each response under appropriate issue headings in a matrix. This matrix is presented as Appendix I. After identifying the various issues in the public record and recording their respective frequencies, each issue was treated as follows: (1) the issue was keyed back into the public record through the matrix, and (2) the substantive arguments and ideas presented in the public record were compiled. The issues were summarized by paraphrasing or recording verbatim, sentences, paragraphs, and even pages from the public record. The organization of the issues in Section II of this report parallels the structure of the Principles and Standards. The comment most frequently made on an issue is presented first. Every effort was made to insure that the discussion of each issue was impartial and objective and reflected accurately the views expressed in the public record. In some instances, similar arguments were addressed to more than one issue. Hence, there may be a certain amount of redundancy in the narrative.

Most of the respondents dealt with more than one issue. For example, an individual would suggest a specific discount rate and discuss the 5-year review clause. As a result, 11,832 comments on 23 issues were received from 4,782 respondents. Figure 1 reflects the geographical distribution by State of the total number of comments on the various issues.

Of the responses received by the Water Resources Council, 187 were from elected officials (Senators, Congressmen, Governors, State legislators, Mayors); 3,121 were from individuals or organizations which expressed one or more points listed in the "Citizen's Alert"; 1,425 were from individuals or organizations which expressed one or more points contained in the "Hot Line," the Blue Cards, the Texas letter, or the Great Lakes form letter; and 49 were general comments. Copies of the "Citizen's Alert," the "Hot Line," the Blue Cards, the Texas letter, and the Great Lakes form letter follow at pages 49 to 57.

The chronological development of the written record provides some additional information. For instance, on February 25, 1972, a total of 391 written comments had been received; over 90 percent reflected one or more points in the "Citizen's Alert" and 4 percent of the remaining portion reflected one or more points later contained in the "Hot Line," and others. By March 3, 1972, of the 516 total, 90 percent still reflected "Citizen's Alert" points and 5 percent the "Hot Line" points; March 10, 1972, saw 699 written comments, 89 percent containing "Citizen's Alert" points, 8 percent containing "Hot Line" points. The total number of written comments jumped to 4,321 on April 14, 1972; roughly one-third mentioned one or more of the "Hot Line" points. During the entire time, the response from elected public officials was between 2 and 3 percent, while general comments accounted for about 1 percent of the total.

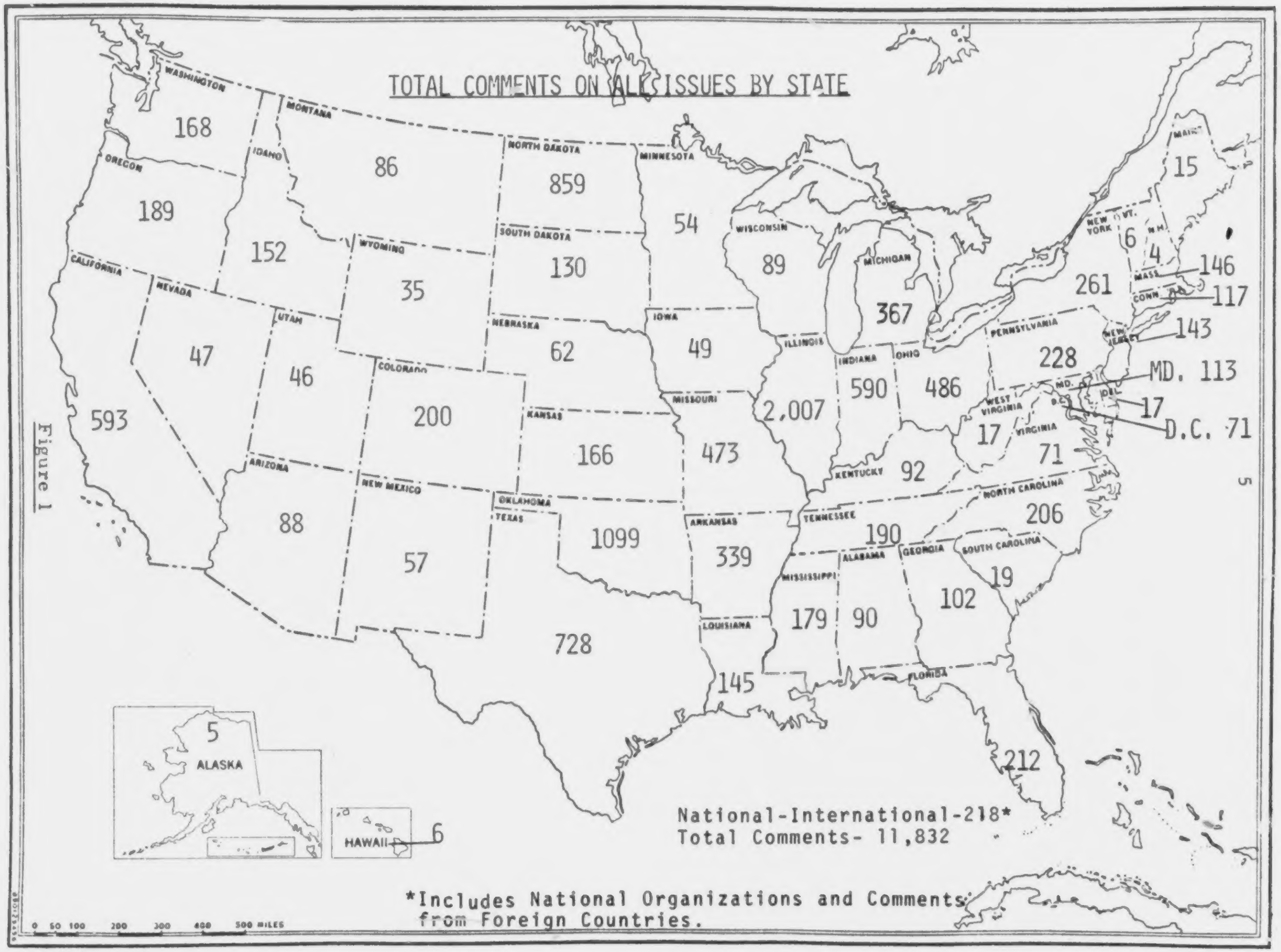

Figure 1

TOTAL COMMENTS ON ALL ISSUES BY STATE
WASHINGTON
168
OREGON
189
CALIFORNIA
593
IDAHO
152
NEVADA
47
MONTANA
86
WYOMING
35
UTAH
46
ARIZONA
88
COLORADO
200
NEW MEXICO
57
NORTH DAKOTA
859
SOUTH DAKOTA
130
NEBRASKA
62
KANSAS
166
OKLAHOMA
1099
TEXAS
728
MINNESOTA
54
IOWA
49
MISSOURI
473
ARKANSAS
339
LOUISIANA
145
WISCONSIN
89
ILLINOIS
2,007
MICHIGAN
367
INDIANA
590
OHIO
486
KENTUCKY
92
TENNESSEE
190
MISSISSIPPI
179
ALABAMA
90
GEORGIA
102
FLORIDA
212
SOUTH CAROLINA
19
NORTH CAROLINA
206
VIRGINIA
71
WEST VIRGINIA
17
PENNSYLVANIA
228
NEW YORK
261
VT.
6
N.H.
4
MAINE
15
MASS.
146
CONN.
117
NEW JERSEY
143
MD. 113
DEL.
17
D.C. 71
ALASKA
5
HAWAII
6
National-International-218*
Total Comments- 11,832
*Includes National Organizations and Comments from Foreign Countries.
0 50 100 200 300 400 500 MILES

The response from Members of the Congress fell into three areas:

Sixty-two Members referred constituents' letters to the Water Resources Council and expressed no opinion on the discount rate or the Principles and Standards in general. (Later, 7 of the 62 made their own views known in separate correspondence and are included in the numbers below).

Seventy-two Members voiced opposition to any impediments to water resource development, many judging the high discount rate unacceptable and requesting consideration of a lower rate. Nine of these suggested a return to the Task Force proposal of 1970.

Two Senators and one Representative supported the higher discount rate.

2. QUOTED EXCERPTS FROM THE PUBLIC RECORD

Stewart L. Udall, former Secretary of the Interior, and first Chairman of the Water Resources Council, on behalf of the National Wildlife Federation of which he is a Director

". . . I'd like to take this opportunity to commend the members of the Water Resources Council and its staff for developing a new proposed set of standards which we think go a long way toward curing the ills contained in the present planning procedures.

"Especially noteworthy are the proposals to set the discount rate at a much more realistic level than exists under present guidelines and the much greater recognition given to preserving environmental values. . . ."

* * * * *

". . . Those projects which possess a wide spectrum of values for the public and for which there is a genuine need will continue to be approved and funded under the new planning guidelines, we're convinced. What will happen, we hope, is that the many marginal and controversial water development projects of the past which exist with rather doubtful cost-benefit ratios and which in the long-run were apt to be more damaging than helpful to the environment, will receive closer analysis and will be required to pass more stringent, all-inclusive tests of eligibility."

* * * * *

". . . It seems abundantly clear to us that if there was a need to revise the planning standards to bring them more in alignment with present-day philosophy, economic outlook, and environmental needs, then it follow[s] logically that the revised standards should apply to all proposed and unbuilt projects. The fact that some of these projects have been authorized within the past five years or a project has been submitted to the 92nd Congress for authorization or a planning study is nearing completion should not be the decisive consideration. Many resource projects previously authorized were included in omnibus bills and received very little scrutiny before action by Congress. . . ."

* * * * *

"While the proposed planning standards document takes into account the quality of the environment, we want to re-emphasize the critical importance of giving priority treatment to this factor. We are rapidly reaching a point in our society where we can ill-afford to impose man-made structures on our few remaining free-running streams. Nor can we afford to continue to channelize streams under the guise of flood control when, in so doing, we simply move the potential flood waters downstream to a different area while at the same time we flagrantly violate all of the principles of sound fish and wildlife management and destroy vital conservation values.

"With respect to giving greater weight to environmental values, the National Wildlife Federation recommends that the Water Resources Council give serious consideration to incorporating the concept of life-cycle planning in the planning process. Life-cycle planning, . . . would require that any proposed water resource plans specifically state and evaluate in quantitative terms the environmental impact of the proposed project during the planning, exploration, construction, operating and, if appropriate, the restoration stages. . . ."

* * * * *

"Unless and until much more overwhelming evidence can be assembled than is presently available that the long-run ecologic, hydrographic, and total environmental consequences of constructing impoundments, levees, and straightening channels and otherwise intervening in natural processes can yield on balance net advantages over leaving these resources and watersheds in their natural state, economic analysis should consider as one of the possible costs of constructing environmental projects, the cost of eventually restoring the watershed or other resources to its natural state."

* * * * *

"In conclusion, . . . I would hope that concerned citizens in all parts of this country will have ample opportunity under the new standards to express their views and to make a vigorous input in the planning of all water resources projects."

David G. Unger, National Association of Conservation Districts

". . . The interest rate used in evaluating proposed water resources projects should not exceed the current cost of long-term money to the government or the current yield to the government on its long-term loans.

"NACD believes that the task force proposals to substitute a multi-objective approach in place of current reliance on economic factors represents a substantial step forward in natural resources planning. National economic development, regional economic development, environmental quality, and social well-being should all be evaluated and taken into account in the decision-making process.

"The determination of all beneficial and adverse effects of proposed plans would give the public and project planners the best possible information upon which to base their decisions. And the formulation of alternative plans designed to achieve different sets of objectives would make public participation in the planning process truly meaningful. All too often in the past, project planning has left the public and sponsors with only two choices, take it or leave it.

"The original task force proposals, as we view them, represent the best possible approach to incorporating all pertinent factors in water resources planning. We feel that the present proposal weakens the quality and comprehensiveness of the original proposals and that its adoption would seriously damage water resources development programs that are urgently needed by the citizens of this nation."

* * * * *

"The objective of national economic efficiency, we believe, is fundamental. So is the incorporation of environmental values. As conservationists, we support the environmental objective wholeheartedly and believe that the Environmental Account is the vehicle to use in determining environmental costs and benefits, not the discount rate.

"I might point out that the multi-objective approach will be most useful in dealing with the controversial subject of channel improvement in water and watershed projects, making it possible to identify and consider all of the environmental and economic effects of channel modifications and alternative plans.

"We believe that the regional development objective should be returned to its full status as outlined in the task force report. Making it apply only when approved in advance would seriously endanger watershed and RC and D projects which are local and regional in nature. Secondary and redevelopment benefits, so important in local projects, could no longer be used in project evaluation.

"If regional development is not used in evaluating projects, water resource projects could not be used as effectively in reaching certain national objectives, such as population redistribution and rural areas development.

"NACD believes that the objective of social well-being should also be given its original status in the principles and standards. It seems unreasonable to say that effects of projects on the security of life, health, and safety, on the reduction of pollution, and on other aspects of the quality of life shall only be noted, not taken into account in the planning and approval of projects. People's lives and the improvement of them are the sole reason for planning water projects of any kind."

* * * * *

". . . The current proposal makes most federal water planning activities subject to the principles and standards, but not all. The same is true of federally-assisted water planning programs. We cannot see any justification for excluding any such programs from these procedures."

* * * * *

"Conservation districts are not concerned solely with 'conservation,' 'development,' or the 'environment,' however these terms may be defined. They are concerned with all of these things. Conservation district officials generally do believe, however, that man is going to continue to alter his environment and develop natural resources in an effort to improve his standard of living and the quality of his life.

"Just which of man's decisions contribute to his survival as a species over the long run is difficult to determine. Learning and taking into account as much as we can about the consequences of plans for water development is a step toward making this determination. . . ."

Arthur Maass, Professor of Government, Harvard University

"In recent years the techniques of analysis that have been used for the design of water resource programs have lagged significantly behind the changing objectives of society. In recent years the national objectives have been changing perhaps more rapidly than in the past.

"Environmental quality and income redistribution to the poor and to depressed areas have become more important and national economic growth perhaps less so. Yet we have continued to plan our water programs in terms of standards and criteria that place principal emphasis on national economic growth and to use this objective exclusively in the formal benefit-cost analysis. As a result, the water resource programs themselves have come to be discredited in part."

* * * * *

". . . The reports on new standards and criteria that the Council's task force and staff prepared some many months ago were on the whole quite good in attacking the problems that have developed since World War II, as I have indicated, and in using new knowledge and new techniques that have been developed in the universities in the previous ten years to do so.

"The document that is before us today is significantly less good in these regards. The Members of the Water Resources Council have botched things up. They have compromised the concept of multi-objective planning by eliminating a number of objectives, prohibiting the planning of projects for them, and by adopting a method of discounting future benefits that is both incorrect and inconsistent with multi-objective planning."

* * * * *

"As for multiple objectives, the document in the Federal Register says that our government cannot plan a project for the purpose of saving human life, nor for public health and safety. . . ."

* * * * *

"The incidental benefits to human life that result from projects that are designed for the objectives of national economic development and environmental quality, these incidental benefits can be displayed but this is very different from designing a project for the purpose."

* * * * *

"One can presumably design a project to save the lives of fish and birds and moose under the environmental quality objective, but not the life of man.

"Gentlemen, this is madness, but the problem is not alone this most dramatic example of human life, and it would not do simply to add human life to the approved objectives.

"Let me give some other examples. Under the proposed standards and criteria the Government can not plan a project for the purpose of helping the poor or any group of the poor . . ."

* * * * *

"We should plan initially for all important objectives that can be influenced significantly by water resources programs and then debate the trade-offs that we want to establish among them.

"The result of such a debate could be that for water resources programs we place such low value on saving lives and on helping the Indians in comparison with the value that we place on national economic growth and environmental quality, that the first two objectives cannot influence project design.

"If this were the case, the decision would have been reached with full information on the potential benefits and costs of all of these objectives. By contrast, in the proposed standards and criteria the members of the Water Resources Council have made the decision that in designing water resources projects and programs benefits and costs of saving lives, of helping the Indians, of many other objectives, should be valued at zero, regardless of their potential size, and the Council members have not stated either the data on benefits and costs, nor any other reasons that have led them to adopt this important decision."

* * * * *

"I recommend then that you return to the draft of the standards and criteria that was prepared by the Council's task force and staff and approve it."

Dr. Laurence R. Jahn, Wildlife Management Institute

"The system of multiple accounts adds needed objectives to the single objective of enhancing national economic efficiency. The proposal is a spendid move in the right direction. But, far more emphasis must be given to the specific procedures and ways the new accounts are to be used."

* * * * *

". . . top priority, rather than secondary attention, in planning, construction and maintenance [should] be given to the functioning ecosystems of the resource base which, collectively, constitute the life support systems for all living matter, including man.

"Conditions are rapidly changing as the human population increases and concentrates in certain localities, often damaging resources and causing disfunctioning of vital ecosystems. Stability and health of the ecosystems must be given top priority attention in national and state development policies."

* * * * *

"The guiding principle should be to avoid irreversible changes, such as driving species to extinction, and to maintain diversity of ecosystems and their associated species. Use of this approach means that planned developments of water and land must be consistent with ecosystem functioning, not inconsistent or in conflict with it."

* * * * *

"Procedures spelled out and applied according to Senate Document 97 have clearly demonstrated the development inadequacies and abuses that have been permitted. The proposed principles and standards could help insure use of much sounder procedures for planning water and related land resources if proper attention is given to life supporting ecosystems. This means that priority attention must be directed to environmental quality in project planning and evaluation. This highest order public interest value must be given primary consideration."

* * * * *

"The immediate need is to prepare guidelines that apply to all water and land planning and development projects to assure that ecosystems receive appropriate priority consideration by all units of the Federal Government, by all state governments, and the public.

". . . the power-production facilities licensed by agencies of the Federal Government [should] be covered by the proposed principles and standards for water development projects.

"Works authorized by the agencies use large quantities of water and have substantial potential impacts on the aquatic resources of the Nation, such as through release of warm waters. This thermal effect will become of increasing concern as more power plants are constructed."

* * * * *

"Recognition of the need for this full participation by professionals and citizens is absolutely essential to help insure that the new principles and standards are applied in the soundest manner practical."

* * * * *

"Legal authorities, institutional arrangements, and procedures of governments should maintain and enhance, not degrade and destroy, the quantity and quality of these important units of the landscape. National and state standards should provide uniform recognition of these critical units of the landscape. This approach would complement the purposes and intents of the pending National Land Use Policy Act.

"This principle of establishing national and state standards and guidelines should be applied much more freely than has been done in past years or is proposed in the new principles and standards for planning water and related land resources."

* * * * *

". . . All projects not yet constructed should be covered by the new principles and standards to assure that adverse environmental impacts are avoided or minimized and that economic calculations are current."

* * * * *

"Likewise, it will complement the requirement that all projects planned using the proposed new standards and not implemented within ten years should be reviewed and planned again."

* * * * *

"More ecologically sensitive evaluations and greater authority and use of nonstructural alternatives are needed to benefit functional ecosystems and avoid conflicts and debates over proposed developments."

* * * * *

"Conservationists are concerned that the regional development account will permit use of additional special benefits and double counting of 'benefits' in regional and national accounts to assist in justifying numerous projects throughout the country. This warranted concern could be minimized if the regional accounts are properly structured. . . ."

Honorable William L. Guy, Governor of North Dakota

"We need in the United States to enhance the standard of living not only for those who are enjoying a good standard of living now, but those who are not. We can put a price tag on this.

"We also need to preserve and enhance the quality of living in the United States. And it is almost impossible to put a price on this. So, obviously, we have to bring about a continuing accommodation between standard of living and quality of living, which are two very different things. And this cannot be done through a formula."

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"The federal government over the years, through a patchwork, uncoordinated, inadvertent series of policies and programs, has been the major cause of population shift and population maldistribution. . . .

"We are gathered today to discuss another patch that the federal government proposes to further exacerbate the maldistribution of our population. I speak of the proposed increase in the 'discount rate' used to judge the worth of some selected federal projects principally involving water and related land use."

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". . . We should establish a goal to distribute opportunity across the United States and hence voluntarily distribute our population in order to avoid the heavy costs of congestion and a diminishing quality of life."

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"We must establish a goal of preservation of ecological balance and the maintenance of a favorable environment for the benefit of people today and those in future generations."

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"Because water is so essential in everything we do and in any progress toward our national goals, it should be obvious that there will be fierce competition for this limited resource called water.

"So serious is the limitation of potable water that we must strive for a wise and reasoned accommodation between our need to develop to provide jobs and investment opportunities on the one hand, and the need to conserve, preserve, and enhance our environment on the other hand."

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"We need to talk about how we can perfect the thought process we must go through to adequately and wisely judge the worth of water related projects. This thought process needs to be multi-disciplinary, delicately balanced, and highly sensitive to all points of view.

"It must include comprehensive planning unimpeded by a required conformity to an impersonal, mechanical, preprogrammed formula. The opportunity cost of money or discount rate is part of such a formula.

"The cost-benefit ratio should be regarded as a valuable source of comparative information, but it should not be used as the only criterion in judging the worth of water resource projects. And to interject an even higher discount rate in cost-benefit computation is to compound the inadequacy of the cost-benefit ratio itself.

"The use of the high discount rate to determine the worth of a federal project is comparable to the use of a crowbar to adjust the mechanism of a fine watch.

"Our nation must shape our resource development or deny development based on a comprehensive study of the merits of each case. We should not seek to stifle consideration of comprehensive merits of a project or the debate over such a project by an arbitrarily selected high discount rate designed to defeat projects rather than to illuminate their worth."

Dr. Leo M. Eisel, Environmental Defense Fund

"We believe that while the proposed principles and standards are, in general, firmly grounded in benefit-cost and welfare economic theory, adequate concern has not been given to methods for their practical application. If the proposed principles and standards are to result in more socially, economically and environmentally desirable policies and programs, additional attention must be given to application methods."

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"Estimation of project cost is always easier than measurement of benefits to society from providing municipal and industrial water supply, flood control, hydropower, recreation, and so forth. The proposed principles and standards indicate willingness to pay will be the 'general measurement standard' for evaluating increases in the national output of goods and services associated with a water resource project.

"Measurement of willingness to pay for water supply or electric power may, however, be difficult or impossible. The proposed principles and standards suggest the cost of the most likely alternative means of obtaining an equivalent output can be used to approximate total value when the willingness to pay method cannot be used.

"Under Senate Document 97, the cost of the most likely alternative for equivalent water supply or hydropower production is used consistently to evaluate water supply and hydropower benefits from a specific project. As employed under Senate Document 97, this evaluation method has severe deficiencies and continuation under the proposed principles and standards is undesirable."

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". . . a more explicit set of guidelines for use of alternative cost must be included in Section III B of the proposed principles and standards (pages 24153 to 24155). The proposed guidelines do state it must be a real alternative that could and would likely be undertaken in the absence of the proposed project.

"The proposed principles must also include guidelines to insure that federal agencies will provide adequate evidence that the alternative is a viable one and would be undertaken in the absence of the proposed program. Without this assurance, the use of alternative cost may be spurious and result in misappropriation of public money, . . ."

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"Discussion of the appropriate discount rate in Section IV D of the proposed principles and standards presents all the correct arguments and reasons for equating the discount rate to the opportunity cost of federal investment--then reaches the wrong conclusion.

"The discount rate is not the proper vehicle for incorporation of a subsidy to water resource projects. If a clear decision is made to subsidize water resource projects for a specific region, this decision should be implemented through the 'regional development objective,' not through a discount rate.

"Use of a 7 percent discount rate for all water resource projects will result in continued authorization and construction of economically inefficient projects. This misallocation of federal money cannot be tolerated in the United States today with its critical needs for massive federal assistance in urban redevelopment, inner-city education, health care, drug programs, environmental protection, and so forth.

"If income transfer to specific regions is desired it can be accomplished through other mechanisms more socially desirable than economically inefficient water resource projects."

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"For these reasons, it is imperative for the Water Resources Council to follow the reasoning of Section IV D and recommend the 10 percent rate. This does not eliminate income transfer to deserving regions or to deserving poor people, it merely requires an explicit decision be made to subsidize a specific water resources project."

Stephen A. Marglin, Professor of Economics, Harvard University

"I would like to say categorically that the standards and criteria proposed with respect to discounting are wrong in principle and likely to be wrong and detrimental in practice. They are even wrong in terms of the theory on which they are based; that is to say, their incorporation reflects a misunderstanding of the theory on which discounting and particularly its application to public investment is generally based.

"I have serious quarrel with the theory. I think the theory is basically wrong, but even with respect to that theory, if you accept it, then I would argue that the application of it as reflected in these draft standards and criteria is incorrect.

"Opportunity cost . . . as it is presented in the draft standards and criteria, as the appropriate criterion for discounting in the public sector, requires one of two equally untenable assumptions: either that the economy is optimal in a sense that economists give to this term, and which I think nobody could seriously maintain about the American economy, with respect to such issues as the distribution of income, the performance of various units, the relationship between private goods and public goods, and a whole host of dimensions. . . .

"The other assumption that would justify the opportunity cost principle equally untenable in my view, is that the alternatives with which public investment is implicitly being compared, either in the private sector or public sector itself, have identical time profiles so that in effect the discounting question really becomes of a very secondary nature. And if you want to maintain that, then it seems to me it is up to you to demonstrate that that is the fact of the case, that the time profiles of the alternative investments with which a particular water project or any other project is being compared implicitly or explicitly are in fact identical, and then, as I say, it seems to me you can justify the opportunity cost principle. . . .

"Now, I would suggest that the correct procedure is to use a combination of a social rate of discount, a rate of discount which reflects the political and public aspects of investment that is made by a government on behalf of all of the people, a social rate of discount coupled with an opportunity cost concept, but one which is used as a measure of a price, of the value of capital resources being devoted to water and therefore taken away from other sectors entering as a price not as a rate of discount. You reevaluate the capital costs in terms of what is called technically sometimes an accounting price of investment or accounting price of capital, but inter-temporal comparisons are made in terms of the social rate of discount."

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"So the first issue then and the first point then I would like to emphasize to you is that the opportunity cost principle as enunciated in the document is wrong in terms of the theory on which it is itself based, and likely to bias projects in the wrong direction if applied in practice."

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"The second point, or the next point I think I would like to emphasize to you, or is important to emphasize, builds upon the achievement of this document and to a greater extent the achievement of the task force document of 1970 in recognizing the legitimacy of alternative objectives and the legitimacy of making plans responsible to these other objectives, and deals with the problem of how you make your display of benefits and costs, or your information that you make available to decision makers on benefits and costs comparable across objectives.

"Now, I don't know if the implication of this present document is that you use the same discount rate for other objectives for environmental quality for regional development, and I would hope for social well-being, as you do for the national development objective, but if that is the implication, I would like to know what the justification of it is because I see none myself, and it seems to me that it is an important gap in the document, if that is indeed what is intended, and, if it is not, what is intended, then I think it must be developed and stated as to what are the principles for discounting the benefits and costs with respect to objectives, other than national economic development."

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"I would propose to you, first of all, that one of the major thrusts of the Water Resources Council ought to be to calculate the opportunity costs of investment in water resources in terms of the real value of the resources devoted to water, that is to say, as a price, not as an interest rate, and that that is the only appropriate basis for introducing discounting into evaluation of public investment. I would give this myself very high priority in your research efforts.

"As an interim measure, I would propose that you extend the logic of what you have done and what I admire so much in your effort, and that is of granting legitimacy and bringing to a par with national economic development other objectives.

"As I say, I would go back to what you had in 1970, namely, with social well-being and environmental quality and regional development on a par with national economic development.

"I would extend that logic of preparing, therefore, alternative plans responsive to each of these objectives to, at least on an interim basis, to the problem of discounting, and I would prepare alternative plans and evaluate them with respect to spectrum discount rates and not with respect to single discount rates.

"Now just to give you an example, and I mean this only as an example and I would like to emphasize that so I am not at any point quoted out of context as recommending a particular number to you for the discount rate, but as an example I would have, let us say, three discount rates: low, medium and high, which would not be common to all objectives because what is a low rate with respect to one objective may not be a low rate with respect to another objective.

"For example, a low rate for a national economic development might be two and a half percent but for environmental quality zero, which would indicate that the relative emphasis on future environmental quality should be higher relative to the present than it is with respect to national economic development because of the expectation that the problems of the environment are going to get more serious as time goes by and not less.

"Similarly, with respect to regional development and well-being, a low rate might be five percent rather than two and a half, an expectation being that other programs are going further, which at some reasonable date in the future are going to make these problems less pressing for water resources design because the regional and class disparities of income will have been ameliorated."

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"A set of medium rates for these objectives might be, again, for example, five percent for national economic development, two and a half percent for environmental quality, seven and a half for regional and social well-being objectives, and a high set of rates might be seven and a half percent for national economic development, five for environmental quality, and ten percent for regional development and social well-being."

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"The discount rate issue is viewed by most people solely in terms of more or fewer projects, and they couldn't care less about what the right way of discounting is. I think that, as I say, is an error. I think it is not as much more or fewer projects that is at issue as the nature and kind of projects that we will have."

Dr. J. A. Stockfisch, Economist, The Rand Corporation

"The major reason for use of the private opportunity rate of return, as I see it, rests on the interrelated ideas that cost-benefit analysis requires that a sharp conceptual distinction be adhered to with regard to costs and benefits, and that the government employ the same 'counters' as does its subjects in reckoning the value of resource inputs that are acquired to conduct government activities. The first idea, that cost and benefits (or utility) be kept conceptually distinct, accepts the notion that decisionmaking affecting the allocation of scarce resources requires some coherent way of ranking alternative uses to which resources may be put. Cost, in this sense, then comes down to providing a measure of alternative uses that are given up as a result of a particular course of action.

"The second idea, that the government employ the same 'counters' as does its citizens, rests on the belief that the cost of government resource using activity should be revealed (or exposed?) in terms of things the citizens are called upon to give up, through the workings of the government's use of coercive financial devices like taxation and money creation. Generally, with the important exception of procurement of military manpower by means of conscription, this principle is adhered to when the government hires labor in the market. I contend that the cost of capital inputs should be placed on 'all fours' with labor inputs. To use a rate of discount that departs from the private opportunity return, which the government can easily do because it is not obliged, for example, to lease or hire its capital goods (as it hires labor), simply renders ambiguous the cost calculations of its resource-using activities.

"This general line of reasoning, incidentally, is neutral on the matter of whether the government sector should be large, or small; or whether there should be more or fewer water projects, or more or less defense spending and so on. It does not depend upon any assumption that the existing allocation of resources which can affect the relative cost (or prices) of different inputs is 'optimal', by any of a possibly large number of criteria that might describe optimality. Nor does it rest upon the idea that cost is, in fact, independent of demand or the valuation of outputs, or utility or benefits (although the argument that cost and benefit be kept conceptually distinct could be so construed); indeed, cost and demand (or valuation) are mutually interdependent, as a clear understanding of the opportunity cost doctrine within the context of a social economy makes evident.

"If one does not accept revealed market valuations of resource services--mutually determined as they are by technical transformation conditions and money demands--as the appropriate measure of cost, then one must employ some other measure of cost for any or even all resource inputs, if one is obligated to undertake a cost-benefit calculus. The 'some other measure' must necessarily be the result of a valuation process. The results of such valuation process have also come to be termed 'shadow pricing', but it is a valuation process nevertheless. At this point, the question of 'whose' shadow price and what are the principles by which it is set arise.

"There is nothing inherently wrong with developing shadow prices (indeed, my method of calculating the private opportunity return implicitly employs such a technique to take account of the 'tax wedge' upon the yields from private investment). However, use of a shadow pricing approach, unless one is careful, is susceptible to obfuscating the distinction between cost and demand, or more precisely in the context of cost-benefit analysis, between cost and benefits . . . ."

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"But, overall, I find the social discount rate concept a rather disingenuous way of addressing the subject of evaluating government programs. It is a way of providing a cost rationale for something when the issue should be explicitly hammered out in terms of demands, or preferences. If the same approach is applied to other inputs . . . it makes a shambles of any attempt to conduct cost-benefit or cost-effectiveness analysis of government programs. The real operational content of all this, it seems to me, amounts to the assertion that political decisionmakers, when employing the coercive power of the state, can override any set of preferences that its citizens would otherwise register in the market place. But this has always been true. However, I see no reason to confuse the concepts of cost and benefits (which are admittedly fragile) in the process. It would be better, it would seem, to dispense with cost-benefit endeavor entirely.

"Thus far I have only discussed the 'principle' pertaining to costing capital inputs employed for government resource-using activities. The problem of determining empirically the 'opportunity cost of capital,' is a separate issue, and entails some complexities which I have addressed elsewhere. I estimate that rate, before taxes, to be around ten percent, after an allowance for inflation. . . ."

Mr. David H. Brune, Trinity River Authority of Texas

". . . No other area of Federal expenditure, except water projects, is governed by the necessity of a favorable benefit-cost ratio. Otherwise stated, all Federal expenditures are decided on the basis of an intangible policy requirement (the public need, the public welfare, the public good, etc.), except as to water. . . ."

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". . . In my personal opinion, the PROPOSED PRINCIPLES AND STANDARDS are a dire threat to the future of water resource development in Texas. Texas water interests must unite as never before to accomplish either the total abandonment of the PROPOSED PRINCIPLES AND STANDARDS or their modification. The two areas for possible modification are in the areas of the discount rate and the 'Grandfather' Clause. . . ."

Dr. George W. Folkerts, Aquatic Biologist, on behalf of the Alabama Conservancy

"Now, in Alabama and throughout the South, there is growing concern over the fact that our State and the region have become a haven for destructive Federal projects. This perhaps has not occurred in some of the areas where some of the rest of you are from. These projects are initiated and pushed very often without regard to their true worth to the public. Many of these projects are promoted under the guise of 'regional development' and most are claimed to be 'tremendous economic boosts' to the areas concerned. Upon closer examination, however, many of them turn out to be little more than devices for perpetuating the power, sphere of influence, and appropriation of the bureaucracy concerned or their associated special interest groups. Such projects are often ecologically disastrous and in many cases are economically foolhardy. . . ."

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". . . When a contrived cost-benefit ratio is used in companionship with a discount rate that is too low, almost any kind of project can be justified, regardless of its true worth. The citizens for whom I speak ask the Council to disregard pressure brought by developers and other vested interests who would benefit by a low discount rate. The time has come to consider first the welfare of the people. . . .

"Public Law 566 projects and R.C. & D. projects should definitely be included under the authority of the Standards, . . ."

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". . . the regional development account appears to be a mechanism for the perpetuation of pork barrel schemes. We would like to see the regional development account eliminated. There is some kind of faulty logic here if when development is a prime objective environmental considerations must take a back seat. . . .

"All projects, whether already started, proposed but not activated, or new should fall under the authority of, and conform to, the new Standards. Not making these Standards retroactive means that previously authorized projects will not have to conform to standards currently considered valid, and there is no logic in that at all."

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"The demographic projections contained in the Standards assume a larger population growth in the United States than will probably occur, and much larger than we can safely allow to occur if we want to save this part of the world. . . .

"Now, although it is not clear exactly to me which types of projects fall under the Standards, . . . I didn't see anything about the activities of the Atomic Energy Commission as they pertain to the stimulation of water usage by nuclear power plants. I'd like to see some statements in there about that. Also the open space grants by Housing and Urban Development and waste treatment grants administered by the Environmental Protection Agency, there's been nothing specified about those, and it seems that they would logically fall under the authority of these standards.

". . . It is hoped that when these Standards are finally approved they will contain measures designed to increase the share of the cost paid for by beneficiaries. . . ."

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"Totally, the Proposed Standards are not stringent enough to prevent projects authorized under them from further degrading the environment. They are oriented toward developers and slanted toward the philosophy that economic gain is important above all else. . . .

"I would therefore like to make the following general recommendations for the Council's consideration:

First, priority should be given to the preservation of the environment and the life-support systems that man depends on. . . ."

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". . . We shall interpret stringent Standards as an indication that the present Administration is concerned about the quality of life in our state. Weak Standards will be a disappointment and will put those responsible in the position of obviously not responding to the desire and needs of the public."

Mr. Harry N. Cook, Executive Vice President, National Waterways Conference, Inc.

"Like benefit/cost analysis, the discount rate has become a device by which OMB seeks to manipulate the water program. By insisting on evaluation standards based on national economic gains discounted at a high percentage rate, OMB can effectively limit expenditures for water programs. The claim can be made that such programs do not meet required economic tests and that the Federal Government, therefore, should be putting its money into other more efficient programs.

"This marketplace concept where water is treated as just another commodity--like apples or cabbages--is just not valid. There is no substitute for water. . . ."

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"The opportunity cost concept as a basis for determining the discount rate is fallacious. Private sector and public sector investment just cannot be compared. The two sectors do not produce the same type of goods, and they do not seek the same returns from their investments. . . ."

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"Implementation of higher discount rates would mean that projects and plans would be scaled down. But there is hardly any way to scale down navigation, flood control or reclamation projects. These are 40- or 50-year projects, and a high discount rate simply means that the 10- or 15-year project is given preference."

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"The matter of discounting is itself somewhat controversial. Many Federal Government programs are not discounted at all. . . ."

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". . . When approved in advance, regional development can be considered as an objective in planning future water programs. Approved by whom? This should be spelled out so as to remove any possibility for future misunderstanding. . . ."

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". . . Social Well-Being. . . . Admittedly, it is difficult to define the Nation's social goals and an even more demanding task to show the beneficial and adverse effects of specific water projects in meeting these objectives.

"But such objectives are very real and, in this day and time, more significant than ever. Consideration of social well-being should be a vital part, therefore, of the process of laying out various alternative plans involving water resource conservation and utilization. If the multi-objective planning approach is to have real meaning and relevance, social well-being should be restored as a full-fledged objective."

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". . . Efforts to make local beneficiaries pay more of the cost of river programs are not desirable. Such programs are supposed to be undertaken to provide broad public benefits. This is why we are so concerned about realistic evaluation: to determine the real benefits to the public."

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". . . Some cost-sharing is in order, but I believe the government should move slowly in changing the present procedures."

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"Most water resource development proponents believe that five years is too short a grace period; they point out that ongoing projects often experience delays of five years or more for data collection or other planning purposes. Projects now in process, they contend, should not be affected by the new standards, since they change the entire ground rules for project formulation and evaluation.

". . . One of the objectives of water resource planning in the future is to be environmental quality. It should have been considered long ago. It was a mistake for the Budget Bureau to insist that economic efficiency should be the overriding consideration in evaluating every river plan. But it would be a mistake now, I believe, to go all the way in the other direction and give priority to the environmental objective. What we need is a fair and complete environmental analysis as well as a thorough and realistic economic analysis."

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"Navigation programs, in particular, seem to come under the gun in the proposed standards. Low-cost water transportation can be of tremendous importance in achieving national objectives, including enhanced economic productivity while restraining inflationary pressures. Rather than taking advantage of navigation programs, however, OMB persists in throwing up new obstacles."

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"The cost of transportation concept is a fine theory but it is hardly practical in analyzing the economics of water vs. rail transportation. And besides, it is in direct conflict with the formula set down in the Department of Transportation Act. This is a basic inconsistency in the proposed standards which should be resolved by elimination of the 'willingness to pay' stipulation."

Mr. Ted Pankowski, Izaak Walton League of America

"In our judgment, they [the Principles and Standards] could lead to the development of an environmentally responsive process for the satisfaction of economic and social needs. . . ."

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". . . Ironically, special interests are crying over the need for 'balance' at a time when more and more citizens are pleading for a redress of the existing 'imbalance.'. . ."

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"Contrary to the amoral stance taken in the Principles and Standards, environmental protection is not just a matter of subjective preference but an indispensable prerequisite for all economic progress, and no dichotomy can long exist between the two. . . ."

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"In our judgment, it is inappropriate to limit environmental considerations to 'certain' natural and cultural resources and ecological systems, and we recommend that such qualifiers be dropped just as we hope that the listing of environmental resources in the environmental account is exemplary rather than all-inclusive.

"More fundamentally, the environmental account lacks a means of judging the importance of a particular resources within the context of a broader environment. Certainly social and political preferences will continue to be important in allocating land and water uses, yet it is not possible for decision makers and the general public to get an accurate picture of what particular decisions mean when assumptions are presented as facts."

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". . . We must opt for a more realistic and higher discount rate and for a greater measure of public participation in water and land resource programs.

"The proposed regional account for us is the subject of fear that so-called secondary benefits will continue as a means of project justification. For economic purposes, the regional account should in fact be unnecessary. It matters less whether public needs are identified by local, state, regional, or Federal interests. The planning process should be open to all and specific proposals should be judged on their merits and value to society rather than on their source."

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"The fruits of a healthy environment in fish and wildlife resources, casual recreation opportunities, amenities and the like is a public heritage and the burden of cost sharing should be on those who dimish or take special privilege from it."

Gen. Herbert D. Vogel, American Society of Civil Engineers

"The American Society of Civil Engineers, with a membership of 66,000, is to be sure vitally interested in assuring that the development of the Nation's water and related land resources moves forward in a way to provide a sound and better quality of life for the people of these United States.

"The Society is deeply concerned with the delays in needed development of the water resources, due to adjustments to meet today's environmental requirements. The Society views the objectives of the 'Proposed Principles and Standards' as a positive comprehensive approach to resolution of this serious problem.

"The Society, therefore, supports the objectives of the proposal as announced in the Federal Register on December 21, 1971, as an important long needed step forward in the effort of the Federal Government to properly consider and evaluate all important factors bearing upon the security and welfare of our Society in the justification of Federal participation in proposed public works projects."

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". . . The Society considers that the gains to the social welfare of the country clearly distinguish the discount rate applicable to public works from that applicable to private investment.

"The Society, therefore, believes that the discount rate based upon the concept of 'cost of money' to the Federal Government should be retained."

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"The Society recommends that 'Regional Benefits' be considered and evaluated for each project by the planning agency with their applicability for accounting purposes being conditioned upon their meeting the criteria of such benefits as defined in the 'Principles and Standards' and justified in the planning report."

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"To limit the period to five years would seriously bog down the public works program with delays for review of authorized projects and consequent delays in planning for new projects.

"The Society, therefore, recommends that the 'Principles and Standards' not be applied to already authorized projects unless actual construction has not commenced within ten years after authorization.

". . . The Society notes that the 'Activities Covered' do not include those Federally assisted programs of the Environmental Protection Agency and of the Department of Health, Education, and Welfare. Perhaps others are not included.

"The Society recommends that the 'Principles and Standards' be applied to Federal participation in all comprehensive regional or river basin planning of water and land resource development and to all Federally assisted programs including grant programs to states, interstate or intrastate entities.

"In addition to the modifications outlined above, the Society considers that an intensive training program is essential to effective and expeditious application of the 'Principles and Standards.'. . ."

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". . . [Recommended] That there be carefully drafted a clear-cut, readily understood, plain English summary of the 'Principles and Standards' and made a part thereof, and . . . that special care be taken in the drafting of the 'Procedures' to clarify and simplify the application of the 'Principles and Standards.'"

Dr. Paul E. Roberts, Professor of Economics, University of Florida, on behalf of the Environmental Defense Fund

"The most favorable aspect of the proposed principles is the discussion about the appropriate discount rate to be used to discount future benefits and costs. Most of the evidence reported in the proposed principles and elsewhere point to an appropriate discount rate of at least 10 percent.

"I find no disagreement with this interest rate and agree that it would be appropriate for the next five years. But rather than establish a fixed rate of 7 percent as suggested, for reasons of political realities, I would rather see a range of interest rates recommended, with a lower rate at 7 percent and the upper rate at 10 or 12 percent. This would allow for some flexibility in analyzing vastly different projects which all have varying degrees of risk and uncertainty associated with them.

"I am afraid that if one particular interest rate is established, then the analysis will be built toward forcing benefits and costs to conform with this criteria as a fixed parameter."

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"In line with the analysis concerning the discount rate, the discussion about risk and uncertainty is appropriate. It seems even more important to establish a range of discount rates to allow for varying degrees of risk and/or uncertainty, depending upon individual situations.

"In addition, it would be difficult to conduct, for instance, sensitivity analysis with fixed discount rates. One of the more revealing aspects of sensitivity analysis is to vary the discount rate, to account for risk or uncertainty, in order to observe the effect on the analysis."

Mr. J. W. Hersey, Chairman of the Board, American Commercial Lines

"I appear here today to register my strong disagreement with the 'opportunity cost' theory . . .

"The rationale underlying the application of so-called 'opportunity costs' in discounting these benefits rests upon the assumption that such a national investment requires an increment of taxation which in turn deprives the citizens of funds which otherwise would be available. It presupposes that such a public investment requires citizens to forego an opportunity acting as private investors to commit in the aggregate an amount of such public investment at a return equal to the 'opportunity' rate of return.

"This argument is fallacious for a number of reasons. First, it assumes correctly that whenever Congress appropriates a sum of money for a specific purpose it increases taxes.

Conversely, it presupposes that failure to commit a specific sum results in a tax abatement, which makes its way somehow into a worthwhile profitable private investment. Current deficit financing strongly suggests that there is no direct relationship between tax relief and the volume of government expenditure. . . .

". . . the mistaken theory of 'opportunity costs' assumes that every dollar is like every other dollar; that a dollar's worth of consumption, sensible or frivolous, is equal in value to society to a dollar's worth of benefit such as freight savings, which may have as its effect an improvement in balance of payments, or an enhancement of our international competitive position or the ability of the farmer to reach a particular market.

". . . the reliance on mathematical criteria for government commitment of its funds for water resources development on the theory of 'opportunity costs,' if correct, would have to be applied to other government programs in which loans, grants and direct investment are dedicated.

"There appears to be no reason to treat the fiscal development of water resources any differently than other government programs which are also designed to enhance the quality of life and the economic development of the country."

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". . . The progressive increase in the discount factor will, in short, achieve its real purpose, to wit: bring to an end the development of our waterways for navigation. It is death by strangulation.

"Meanwhile, what are our competitor nations doing? In Holland, Rotterdam is now completing the fabulous Europort, which has had the effect of making Rotterdam-Europort by far the largest facility in the world, bringing to the European economic community the advantage of importing ores and petroleum and grain in ships of 250,000 tons capacity and greater, while the United States must content itself with the higher costs attending the use of ships one-third this size."

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"Clearly, all projects must be undertaken with the physical constraints which will protect the environment and certainly minimize any change in the ecology. Existing new laws relating to the protection of the environment contain all the weapons which the environmentalists need. Indeed, signs of over-kill are evident."

Dr. Steve H. Hanke, Assistant Professor, Departments of Geography & Environmental Engineering, and Political Economy, The Johns Hopkins University

"Although there are differences in emphasis between evaluation and cost-sharing--evaluation dealing with benefit-cost relationships in production and consumption, and cost-sharing centering on the incidence of benefits and costs--they cannot be separated in proper economic analysis. . . .

"Cost allocation, reimbursement and cost-sharing procedures should be integral parts of the evaluation process."

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"If evaluation procedures are to have consistency, the following reimbursement principle should be adopted by the WRC: the beneficiaries of water resource projects should be charged the full cost of the goods and services provided them unless either the cost of imposing and collecting such a charge is prohibitive or an explicit decision to redistribute income is made and it can be demonstrated that the incidence of project benefits is consistent with this decision."

* * * * *

"Local beneficiaries favor inflated program objectives if they are not held accountable for the costs that they impose. To eliminate this type of cost-sharing bias, local beneficiaries should be required to share the costs of a project in proportion to their incremental benefits.

"Water resource management has historically been based on managing supply--augmenting supply to meet 'requirements.' Demand management through proper cost allocation, cost-sharing, and pricing is at variance with standard practices; price is almost never employed to manage use.

"Perhaps this element of water resource management has contributed more than any other to the water resource agencies' bias toward development and overexpansion. If properly conceived, pricing policy in water resource management should avoid wasting resources on needlessly large water resource projects, while maintaining proper use of available supplies."

Mr. Carl H. Bronn, Executive Director, National Water Resources Association

". . . Inasmuch as the law that establishes the Water Resources Council has a preamble which calls for optimum development of natural resources through water resources planning, it would seem pertinent that optimum development be made quite clearly a concept of the principles. I can find criteria about the most efficient plan, criteria about no development at all, but nowhere in there can I find that optimum development is required by the law, is to be a concept for development.

". . . again the law that established the Water Resources Council says very clearly that the Council shall give a regard to social goals. This is not clear. In fact, it becomes apparent that social goals will not be a basis for formulation. And so we urge you to take into account social goals for project formulations which, to us, is the intent of P. L. 89-80."

* * * * *

". . . all planning has some kind of action as the end product, either actions to do something or at least decisions to do nothing. In this, the b/c ratio has been a decisive factor. It is not quite clear to me what the b/c ratio will be. I thought I understood at one time. I am now of the opinion that I don't, and I think it would be well for the final principles to have a stronger statement, and I believe the intent is to the effect that the b/c ratio would not be a dominating or an eliminating factor by itself. . . .

". . . I'd like to go back to [Elmer B.] Staats again . . . He testified to the Joint Economic Committee when they were wrestling b/c ratios, and other concepts in the government, that discounting has a function; but for major decisions by the Congress, discounting is only one function and that the Congress should always be presented with an array of discounted benefits.

We should like to second that recommendation. It's a simple thing. The graph will show the time streams, the benefits, and the costs."

Honorable Pierre S. Du Pont IV, Member of Congress

"I recommend that all Federal water resources projects be evaluated at the rate of return on private investments and if it is deemed desirable to subsidize water resource projects on a specific type or in a specific region, that an explicit decision to do so be made. Continuation of the existing subsidy to water resource projects through the discount rate, as demonstrated by the proposed seven percent rate, in my opinion should be terminated."

* * * * *

". . . under the present system many years elapse between authorization of a water resource project and initiation of construction. Throughout this period, the cost and benefits of a project are annually updated and revised for presentation to the House and Senate Appropriations Subcommittee of the Committee on Public Works. All the costs and benefits associated with the project are annually updated with one important exception--the discount rate."

* * * * *

"Continuing to use a discount rate appropriate to 1948 in 1972, while updating all other costs and benefits parameters, is economically and socially absurd. . . ."

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"I recommend these proposed guidelines terminate the grandfather clause and require at least the recommended 7 percent, and preferably a 10 percent, discount rate be applied to all projects after approval of the Principles and Standards for Planning Water and Related Land Resources by the President. Continuation of the discount rate grandfather clause serves no social or economic purpose."

Mr. Donald R. Allen, Law Firm of Duncan, Allen and Mitchell

". . . I am personally distressed, however, at the extent of misinformed discussion taking place over the proposed principles since their publication.

"I have heard serious people, who I am sure know better, oppose or endorse the principles because of what they think the higher discount rate will do or not do to water resource projects. This is utterly ridiculous, as anyone who has taken the time to read the proposed principles will agree. A five, seven, or ten percent interest rate by itself will not necessarily sink or float a Corps project in this day and age. . . ."

* * * * *

". . . The real issues here concern, one, the extent to which the public is involved in identifying objectives which will be studied in a project situation, the use to be made of the regional development account, the environmental quality account, the social account.

". . . the impact of the account analysis will have on planners and their products; and, . . . finally, whether water projects will become more responsive to water resource needs by virtue of the principles.

"Before turning to my specific comments on the proposed principles, I would like to raise one fundamental question which occurred to me and for which I do not yet have an answer. To what extent can we consolidate, improve, refine, and intensify our planning process before we reach a point where the projects we are planning and the objectives we are pursuing are beyond the scope of our existing legislative authority?"

* * * * *

". . . I have some problem with the degree of sophistication which the proposed principles and standards would require in water project planning. . . . Federal officials do their best to formulate plans to meet water resource needs. However, they work with limited tools, and in a society which is relatively unplanned the proposed principles call for an extremely sophisticated measurement of project costs and benefits."

* * * * *

". . . The principles would require precise measurement of these labor force shifts in population. . . .

"If there is a national population policy, how does any one project fit into it? More importantly, how does project 1, project 23 and project 41 taken together affect the national population policy. This failure to relate project-by-project effects to the overall impact of water resources programs and in turn to national policy is not unique to the principles. S.D. 97 suffers the same defect. . . .

"My point is that we may be overemphasizing precision in individual project analysis and not paying enough attention to analyzing whether our water resource projects taken individually and together effectively address our national needs. . . ."

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". . . to the extend the Council is convinced its proposals do not exceed existing legislative authority, I heartily recommend that it press on. To the extent new legislation is needed, the Council should seek it. Federal dollars will be spent, no matter what we do here, on water resource development, irrespective of the plan formulation technique utilized or the discount rate adopted."

* * * * *

". . . In their present state, the proposed principles are without implementing guidelines. They constitute basic principles which lack an implementing element. Grave danger lies ahead for the principles and Federal water resource agencies if proper steps are not taken to implement the proposed principles prior to final adoption. . . ."

3. SUMMARIZED EXCERPTS FROM THE PUBLIC RECORD

National Association for the Advancement of Colored People (NAACP) - Western Region

While the Dallas Negro Chamber of Commerce acted in concert with most Chambers of Commerce in opposing the slowdown of water resource development, the Western Region of the National Association for the Advancement of Colored People issued a statement opposing water resource development as it is currently handled. The main thrust of the statement was ". . . that the allocation of billions of dollars for water projects is at the expense of other federal programs (such as model cities, urban mass transit, public housing, and education) that are directly designed to ease the crushing burdens of the urban poor and to correct past social and racial abuses. . . ."

It is the contention of the NAACP that the following areas of the Principles and Standards should be revised. The discount rate should be set no lower than 10 percent. ". . . Obviously, any project that would be viable at a rate of 10% would have to demonstrate a wide range of benefits to broad segments of the public. Social and economic programs that would deliver benefits only to a small sector of society would have to be rejected. . . ."

It was additionally held that water projects provide short-term employment while the need in urban areas is long-term works such as urban renewal and mass transit projects.

Recreation as a benefit of water resource development does not apply to urban poor. Reservoirs are generally in nonurban areas and no transportation system exists to link the two. The suggestion was made ". . . that recreation benefits be disallowed for reservoirs outside metropolitan areas unless and until the recreation needs of metropolitan areas first have been ameliorated. At the very least, recreation benefits for otherwise inaccessible reservoirs should be allowed only if the project includes provision for public transportation linking the projects to one or more significant population centers. . . ."

* * * * *

". . . We find the Council's discussion of the social effects of water projects totally inadequate. The section on income distribution does not deal broadly enough with the manner in which federally financed water projects misallocated wealth. . . .

"The effect of spending money in one area or spending in another is not dealt with correctly. The problem of social priorities, which we mentioned earlier should be evaluated in far more depth."

Indian Rights

Social priorities were also a concern of those advocating Indian rights. Mitchell J. Fowler, a Navajo Indian and social economist, emphasized the need for Indian participation in the formulation of the Principles and Standards. ". . . I commend you for departing from the previous assessment of federal water projects of the past and creating the various 'accounts' of consideration, 'social factors' being one. However, you are well aware of the fact that Indian people and tribes have had no considerable input into your evaluation . . ."

* * * * *

"This input should be developed in the form of possibly an Indian preference statement among the principles and standards for water and related resource development. Its approval should be made by recognized national Indian organizations such as National Indian Youth Council and National Congress of American Indians. Of course, if your Council refuses to take the appropriate action necessary to insure protection of our resources, then we will be forced to seek an injunction or declaratory judgment in the district court . . ."

A spokesman for the Native American Rights Fund stated the same point this way, ". . . the Government has a solemn obligation to provide this water for the Indians. It's inherent in the setting up of Reservations that a promise has not been kept and there is apparently, according to the guidelines that the Council has promulgated . . . there is no intention to have it kept in the future because there is not a single mention of Indians anywhere in those guidelines."

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". . . while Indians have not been able to get water resources projects which would benefit their Reservations, there have as we all know been numerous projects built on Indian Reservations which are designed for the benefit of people off the Reservations . . . "

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". . . But Indian preference should not be left to tacit interpretation. It should be specifically spelled out in the Principles, Standards, and Procedures which this group adopts. . . . "

The importance of restoring the social well-being account was emphasized. In the area of income redistribution, a suggestion was made that projects where income would go to low income groups should be given preference over those with a return to relatively high income groups. Any projects built should benefit Indians through increased water, arable land, or money.

National Coalition of Land Reform

The Coalition suggested in-depth studies should be made to determine the social impact of water projects, and remarked that if benefit/cost is to be defined, beneficiaries should be defined first. ". . . If they [beneficiaries] are large corporations, large conglomerate corporations, who in many cases use agriculture and water from agriculture as a tax loss, then a very serious reevaluation of the program is needed.

"Perhaps, the most important question before you is very simply the quality, or lack of it, that will remain in rural America, and what this Government will do to uphold that quality or lack of it. . . . "

Association of American Railroads

The Association asserted that ". . . navigation projects should not only be evaluated from an economic standpoint, but they should be evaluated to determine if they would provide a transportation service which is required from the public viewpoint, and not merely from that of waterway carriers and shippers who seek improved facilities to enhance their profits."

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"The railroads find serious deficiencies in the proposed Standards regarding the measurement concepts and procedures for evaluating navigation project effects under the national economic development objective. The principal deficiency is that little or no attempt has been made to evaluate the benefits for this objective from the comprehensive public viewpoint. From such a viewpoint, for example, the national economic development benefits due to the increased output of the nation's goods and services should be the increased value 'to the nation' rather than 'to the users.' As has been shown in Section 4 of this statement, the net benefits of a project from the comprehensive public viewpoint may be only a fraction of the primary direct benefits to users."

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The Association stated that, "The principal deficiency of the procedures in the proposed Standards for evaluating navigation project effects is that they omit consideration of the effect of navigation projects on any group other than the Waterway shippers. . . ."

"Unless the Council intends to completely abandon the comprehensive public viewpoint in water resources planning and evaluation, we urge the Council to include in the national economic development account, the direct benefits of navigation projects to waterway carriers due to increased income and likewise, include as an adverse effect the loss of income by transportation modes from which traffic is diverted. . . ."

* * * * *

"It is important for the Council to establish procedures for the direct measurement of benefits due to improvements in national economic efficiency for at least those water resource uses (hydroelectric power and commercial navigation) where there are alternatives in the private sector and where water resource development decisions should be based primarily on a comparison of the relative efficiency (resource costs) of alternatives. . . ."

* * * * *

The Association urged "The adoption of adequate waterway user charges would shift the cost of navigation projects from the general taxpayers to waterway carriers and shippers as direct beneficiaries of such projects for private gain. Since much of the pressure for federally-financed navigation projects is generated by special interest groups who benefit from federally provided facilities, an adequate user charge would reduce pressures for uneconomic projects. Adequate user charges would also discourage the overdesign and early replacement of waterway projects, would encourage transportation by the most efficient mode in basic economic terms, and would be consistent with and encourage sound national transportation objectives."

4. GENERAL RESPONSES

The responses which contained one or more points mentioned in the "Hot Line," Oklahoma Blue Cards, Texas letter, and Great Lakes form letter included comments from organizations such as Chambers of Commerce, Soil and Water Conservation Districts, Arkansas River Basin Interstate Committee, various Port Authorities, Water Resources Congress, Wabash Valley Association, Water Conservancy Districts, Texas Water Conservation Association, Red River Valley Association, Oil Transport Company, Inc., and from many individuals.

In addition to stressing points listed in the above documents, 50 people indicated that Congress should make all decisions regarding the authorization of water resources projects. Organizations such as the Tulsa Port of Catoosa and The Delta Council in Stoneville, Mississippi, stated that the Office of Management and Budget should not dictate to Congress and changes in the Principles and Standards appear specifically designed to circumvent the intent of Congress. The issue was alternately put that authority for establishing standards for discount rates should be vested solely in the Congress and not a bureau that has no comprehension of what the will of the people might be.

Comments regarding agency coordination between local, State, regional, and Federal entities raised the point that State and local agencies would be faced with significant problems arising from the incompatibility of State and local criteria with the new Federal criteria. Another area of conflict was related to objectives. It was stated that social well-being should be a basic objective and that State and local planning must contain a regional perspective. Groups commenting were the Indiana Association of Soil and Water Conservation Districts, the Randolph County Drainage Board (Indiana), and the Idaho Water Resources Board.

Generally speaking, those who emphasized one or more "Hot Line" points did not address matters other than those listed in the "Hot Line" and the others.

Many environmentally oriented organizations, such as The Izaak Walton League of America, National Audubon Society, Environmental Defense Fund, National Wildlife Federation, Sierra Club, Trout Unlimited, Friends of the Earth, Environmental Action, Citizens Committee on Natural Resources, National Parks and Conservation Association, Natural Resources Defense Council, Wilderness Society, Wildlife Management Institute, and many individuals, expressed one or more points contained in the "Citizens Alert." In addition to the eight points listed in "Citizens Alert," other issues were raised. For example, recycling of water was mentioned in 1,127 comments. The Arizona Wildlife Federation, National Parks and Conservation Association, Conservation Council of Virginia, Massachusetts Audubon Society, Open Lands Project, as well as a large number of individuals, indicated an interest in recycling water. They argued it would be a more efficient use of water and would help avoid the need for so many environmentally destructive development projects. Recycling water would prevent pollution of water otherwise of acceptable quality and would have an additional benefit of recycling nutrients through assimilation by natural plant communities or agricultural crops.

In addition to recycling water, some of the above groups or individuals suggested an alternative to structural flood control is flood plain zoning, that is, keep flood plains clear of buildings, dumps, and other construction. They reasoned that flood plains could then function properly by absorbing seasonal highwaters, recharging underground water supplies, assimilating nutrients, and maintaining important biological diversities and habitat. Additional comments, including those from the Arkansas Department of Planning, and the League of Women Voters, Connecticut River Basin, dwelt on the need for alternatives, but did not make specific recommendations.

Organizations such as the Illinois National Survey and the Nebraska Game and Parks Commission and some individuals stated that a single agency should not be responsible for both planning and construction of a project. They indicated that national priorities and sound planning would be better served by a separation of these activities.

Comments, mostly from individuals, questioned the projections mentioned in the Principles and Standards. They feld the demographic (population) projections contained in the Standards assume a larger population growth in the United States than will probably occur, and much larger than we can safely allow to occur if we want to save this part of the world. The authorization of projects with such projections means that many will be superfluous and therefore wasteful and destructive.

Several points were raised by a cross-section of the respondents. For instance, it was generally agreed that the Principles and Standards were difficult to read and understand. Length, technical language, and vagueness were cited as the major obstacles. It was suggested that the Water Resources Council employ professional editors to translate the document into English.

Questions arose regarding which projects, programs, and activities would be subject to provisions of the Principles and Standards. Of the 76 who responded, several requested that specific projects or programs be either included or eliminated from consideration in the final Principles and Standards. The Water Resources Commission of the Michigan Soil and Water Conservation District urged that the Standards be amended to exclude all projects like those carried out with PL-566 assistance. Others indicated that wildlife refuges and wild and scenic rivers should be excluded from the Principles and Standards.

The Amador County Water Agency of Jackson, California, and the Lake County Flood Control and Water Conservation District of California stated that applying a discount rate to water projects and programs was discriminatory because many other Federally funded programs were not so covered.

The American Society of Civil Engineers and others suggested that the Principles and Standards coverage should be extended to other agencies and/or programs and projects. Among those to whom the coverage should extend were the Environmental Protection Agency, Atomic Energy Commission, and Department of Health, Education, and Welfare.

A total of 52 comments requested that the Principles and Standards be more specific in their treatment of benefits. Discussion centered on impact of benefits, national economic development, flood control, distribution of income and its effect on social well-being, navigation and/or transportation and measurement of value to users of outdoor recreation. Among some of those commenting were the Citizen's Environmental Coalition, Upper Mississippi River Conservation Committee, Metropolitan Sanitary District of Greater Chicago, Environmental Defense Fund, and the Port of New Orleans. A discussion of the issues is analyzed in Section II.

Apparently to encourage and facilitate the public response to the proposed Principles and Standards, various organizations distributed communications which highlighted, from their point of view, the salient issues contained in the document and the organizations' opposition or support thereof. A copy of the "Citizens Alert," published January 18, 1972, the "Hot Line," March 1972, the Oklahoma Blue Cards (so called because each of the 581 blue postcards had an Oklahoma address), the Texas letter, and the Great Lakes form letter follow.

CITIZENS ALERT

YOU HAVE A UNIQUE OPPORTUNITY TO PREVENT UNNECESSARY DAM BUILDING, CANAL DIGGING AND CHANNELIZATION IN THE YEARS TO COME AND TO PROMOTE THE ESTABLISHMENT OF PARKS AND THE PRESERVATION OF WILD AND SCENIC RIVERS AND VALUABLE WILDLIFE HABITAT.

The Water Resources Council (WRC) has just published proposed new Standards governing the water development projects of the Corps of Engineers, the Bureau of Reclamation, the Soil Conservation Service, and the Tennessee Valley Authority. The Standards will determine which projects can go forward and which cannot in the years to come.

The public has been invited to comment on the proposed Standards. Developers and construction interests which support agencies like the Corps will be trying to force the WRC to rewrite sections of the Standards which they don't like. Concerned citizens have **until March 31, 1972,** to express their views. Your letter is crucial in making the public's voice heard.

Your letter should stress the following points:

1) that you want the "discount rate" set at a realistic level of 10%, the "opportunity cost of capital." A high discount rate will make economic evaluations more realistic and will eliminate many destructive water projects which are economically unsound.

2) that you want the new Standards with a high discount rate to apply to all uncompleted water resource projects no matter when they were authorized in the past.

3) that you want priority given to preserving environmental quality. Mention particular rivers and streams of concern to you and ask that they be protected.

4) that you want the regional development account dropped because it will lead to more environmentally destructive projects.

5) that you as a citizen want to have a voice in planning water projects in your area.

6) that you want local beneficiaries of water resource projects to pay a far greater share of the costs of these water projects.

7) that you want public hearings on the proposed Standards held around the country so that people can express their views. As of now, hearings have only been scheduled for Washington, D.C.

8) that you want your comments to be made part of the official record on the proposed Standards.

Add any other concerns you wish the WRC to consider in drafting the final version of the Standards. Tax deductible groups can voice their opinions because the Standards are an administrative not a legislative action.

Address your letter to:

Director
Water Resources Council
2120 L Street, N.W.
Washington, D.C. 20037

REMEMBER, AMERICA WILL HAVE TO LIVE WITH THESE NEW STANDARDS FOR A LONG TIME TO COME.

For further explanations see other side. For more information or additional copies of this bulletin, contact the organizations listed below. The Standards were published in the Federal Register on December 21, 1971. Copies may be obtained by writing the WRC at the above address.

Citizens Committee on Natural Resources
Environmental Action
Environmental Defense Fund
Friends of the Earth
Izaak Walton League of America
National Parks and Conservation Association
National Audubon Society
National Wildlife Federation
Natural Resources Defense Council
Sierra Club
Trout Unlimited
Wilderness Society
Wildlife Management Institute

EXPLANATIONS

DISCOUNT RATE. Big destructive dams, canals, and channelization projects are difficult to justify under a high discount rate because the supposed benefits these projects produce occur many years in the future whereas the costs are borne in the early years of construction. The value of future benefits is "discounted" since $1 in benefits several years from now is worth less than $1 today. This is because $1 invested today in banks or in other investment opportunities would be worth more than $1 next year and considerably more 50 years from now. When set at a proper level, the discount rate can insure that the taxpayer gets as much out of federal projects as he would if the money had been left in the private sector to be invested as people saw fit. Leading economists point out that since federal projects take money out of the private sector where investments earn between 8% and 12%, the government should only take the taxpayer dollars to build dams and channelize streams if it can get as good a return on these projects. In the past, projects have been subsidized by the use of a very low discount rate. By supporting the economically sound discount rate of 10% which is the present opportunity cost of capital, conservationists can insure that pork barrel projects are kept at a minimum.

OBSOLETE PROJECTS. In the past many projects were authorized, but not built, at discount rates as low as 2⅝%. Congress can fund these projects for construction if it chooses despite the low discount rates under which the projects were authorized. The new Standards would only apply to projects submitted to Congress after the President officially approves the Standards. There is a possibility that already authorized projects on which no construction has started within 5 years may be reviewed under the new Standards. However, we must ask for more than this. We must urge that all projects not yet constructed be made to comply with the new Standards or be abandoned.

PRIORITY TO ENVIRONMENTAL QUALITY. According to the Standards, the overall purpose of water resource planning is to reflect society's preferences for achieving three objectives: national economic development, quality of the environment, and regional development. Citizens should let the WRC know that quality of the environment is essential for the well-being of everybody and that this objective should be given priority. Tell the WRC what would and what would not improve the quality of the environment in your area. Mention specific rivers and streams you want preserved. Ask that protection be given to wetlands, estuaries, fish and wildlife values, and to scenic areas. Tell the WRC what you see to be desirable and undesirable patterns of growth and development in your area. Indicate your insistance that the agencies which have planned environmentally destructive projects in the past not continue to do so under the new Standards.

REGIONAL DEVELOPMENT. The regional development account should be dropped from the Standards. This account contains serious economic flaws and affords agencies their best chance to foster more ecologically harmful projects. Leading economists are concerned about the regional development account because a serious neglect of the real costs to the nation of these water projects is likely to occur. When the Federal Government invests money in any region of the country, that region is going to benefit economically. However, while investing in one area, the Federal Government is foregoing opportunities to benefit other areas of the country. Efforts to help one area of the country can even seriously hurt other areas. For example, irrigation projects in the West have displaced many farmers elsewhere in the country. Agencies like the Corps and the Bureau of Reclamation which plan water resource projects do not have the knowledge to be able to compare the benefits of a dam in one area with all the other ways that this money might be spent such as on education, pollution control, etc. Yet to use a regional development account wisely this is exactly what these agencies would have to know. The Standards carefully point out that the regional development account is to include not only increasing the region's income but also enhancing the quality of the environment in the region. However, the environment of a region will likely take a back seat when the regional development account is being used.

PUBLIC PARTICIPATION. The Standards scarcely mention the public's role in planning water resource projects. Unless the public can make a substantial input into the planning process, special interests can exercise undue influence on agencies like the Corps. Provision must therefore be made for real citizen input during the early stages of project planning. If you can find out before plans are finalized that a cascading trout stream is to be destroyed by a proposed dam, then you have a better chance to do something about it. Ask that environmental groups on the local and on the national level be given a greater opportunity to take part in the planning process. Ask that agencies be required to solicit public opinion before planning reaches advanced stages.

GREATER COST SHARING. Most environmentally destructive water projects permit the major costs to be financed solely by the Federal Government, with local people paying only the costs of certain items like land acquisition. Canals and waterways built with taxpayer dollars are used free of charge by barge companies, and the costs of most federal irrigation projects are never expected to be fully repaid. We must ask that beneficiaries be required to pay for a significantly greater share of project costs than they have in the past. Don't be misled by the argument that these projects are for poor people. The fact is that these water projects disproportionately benefit the well-to-do.

January 18, 1972

WATER RESOURCES CONGRESS

HOT LINE

Uniting
WATER RESOURCES ASSOCIATED / NATIONAL RIVERS and HARBORS CONGRESS
(Formerly Mississippi Valley Association)

E. Michael Cassady
Executive Vice President

BEWARE THE IDES OF MARCH

The "Ides of March" were fatal to Julius Ceasar, one man, in the year 44 B.C. Two thousand years later, the approximate "Ides of March" 1972, could see the welfare of the American people suffer a cripling and destructive blow. Untold thousands could be added to the welfare roles and so burden the National and state government's fiscal capabilities that they would collapse.

Thw Water Resources Council has scheduled a series of hearings on and about the coming "Ides of March", 1972, dealing with "Principles and Standards for Planning Water and Related Land Resources". These "Principles and Standards" hearings are to be held in San Francisco's Federal Building March 13 and 14; St. Louis, Missouri at the St. Louis Engineer's Club March 15 and 16 and at the National Museum of History and Technology in Washington, D. C., March 20 and 21.

The Water Resources Council is encouraging public comments on the Proposed "Principles and Standards". We trust that everyone with a valid interest in the proposal will offer their comments. We feel that every member of Water Resources Congress, because of his membership alone, has not only a valid interest but an intense and abiding interest that compels him to appear at the hearing closest to him and offer his comments. If he cannot appear as a witness he should still be interested enough to submit his written comments to the Water Resources Council by March 31, 1972, the last day for receiving written comments. Additionally, each member is urged to write his Senators and Representative setting out his views. And, copies of your comments to the President, may, if enough are transmitted, compel President Nixon and his advisors to satisfactorily amend the proposals before they are implemented.

As the proposed "Principles and Standards" are now written they would sound the death knell to water resources development as we know it. However meritorious any project may be that provides its major benefits several years after the completion of its construction, however substantial these deferred benefits may be, that project will not pass the proposed evaluation procedures and its construction will not be permitted.

When the proposed "Procedures and Standards" were published in the Federal Register they required fifty pages of telephone-book size print. It is apparent that the material cannot be reproduced here but those who want the complete text may request Part II-Volume 36-Number 245 of the Federal Register from the Water Resources Council, 2120 L Street, N.W., Washington, D.C. 20037.

The pertinent features of the proposal include the scrapping of the four account system earlier adopted by the Water Resources Council Task Force. These four accounts are: national development, environment enhancement, regional development and social well-being, which accounts were intended to assure the full and systematic evaluation of beneficial and adverse effects. The proposal includes only two accounts or objectives that will be approved for project evaluation: (1) national development, which is the standard national efficiency criterian yielding the conventional benefit/cost ratio, and (2) environmental enhancement, the effects of which are difficult to predict and virtually impossible to evaluate. In exceptional cases, regional development may be designated as an "objective", and thus serve as a basis for authorization, but only if advance approval is obtained - presumably from the Office of Management and Budget.

Also included, is the requirement for the use of a 7% discount rate in the evaluation procedures. The current discount rate is 5 3/8% up from 2 5/8% three years ago. What this rate increase does is to eliminate from further consideration sixty percent of the authorized projects that have been authorized by the Congress and signed into law by the President or one of his predecessors but on which construction has not begun. As if this were not enough, they propose that the 7% rate be increased to 10% within a few years. An additional requirement of the proposed "Procedures and Standards" is the so-called grandfather clause which states all projects on which construction is not undertaken within five years of authorization will be reevaluated using the new 7% rate. The reanalysis, would of course, be made under the terms and philosophy of the proposed "Procedures and Standards". Those projects authorized in earlier years with the then applicable discount rates would undoubtedly fall into the ranks of undesireable and not needed projects.

The proposal of the Water Resources Council also calls for unrealistic "Cost-sharing" policy directed to the end that beneficiaries bear an equitable share of the cost commensurate with the benefits received. This has long been an institutional axiom of the Bureau of the Budget, now the Office of Management and Budget.

The Office of Management and Budget, after many years of explanations and, in fact pleadings, refuses to accept the constitutionally stated principle that ours is a sovereign government which is commissioned to perform its functions in pursuance of constitutionally delegated powers for the general welfare. Its responsibility is to serve the public interest of American citizens and not to sell back to them the output and benefits of their own facilities. The blanket demand for reimbursement by so-called identifiable beneficiaries misconceives the nature of the federal government's function and that if we accede to it, we will terminate many of our ongoing welfare programs in addition to water resource development.

In the above paragraphs we have pointed out some of the major harmful aspects of the prosposed "Principles and Standards" namely, the allowance of only two basic accounts or objectives to be used in evaluation procedures; the imposition of the 7% discount rate in the evaluation formula; the unreasonable cost-sharing principles and the 5-year grandfather clause.

Again we urge you to protect your area, your region and your country by appearing at one of the hearings or submitting in writing your feelings and comments to the Water Resources Council by March 31, 1972. Also, that you will advise your Members of Congress in the House and Senate of your feelings and encourage your neighbors and local and state elected officials to join in these petitions. Finally, to advise the President of the United States of your wishes for a realistic discount rate, the proper use of regional benefits in the evaluation process, a cost-sharing formula that is consistent with local and state capabilities and the complete removal of the 5-year grandfather clause from the proposed standards.

FACT SHEET

The backlog of public works projects authorized but not yet funded as of January 1, 1972 is 616. With a 7% discount rate, 50% of these projects would be killed. With a 10% discount rate, 75% of these projects would not be approved for construction. The dollar value of these projects is $11.9 billion. Under the 5-year "Grandfather" requirement for construction, more than $8 billion worth of construction starts would be lost.

A conservative ratio of one man year of work, either director in related service industry, for each $10,000 of contract price has been established. Accordingly if the discount rate is increased to 7%, 1,200,000 employees would be kept from the labor force for each of the next 10 to 15 years (Basis of one plus billion dollars appropriated in recent years for water resources projects). Quoted following is an excerpt from the "Principles and Standards" proposed by the Water Resources Council:

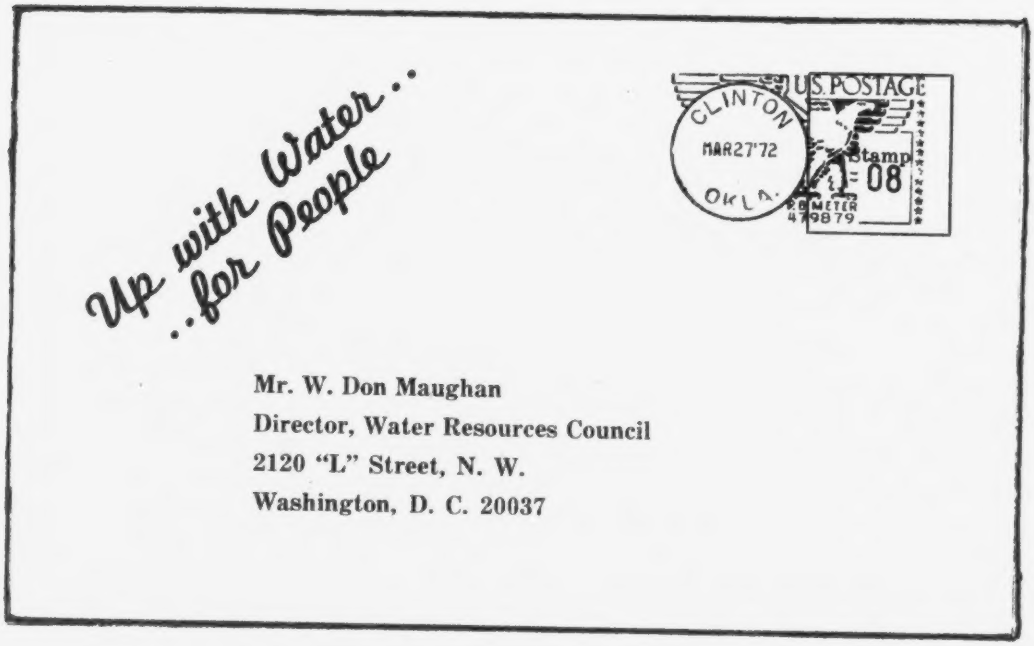
> 2. *Federal and federally assisted programs and projects.* These standards apply to the planning and evaluation of the effects of the following water and land programs, projects, and activities carried out directly by the Federal Government and by State or other entities with Federal financial or technical assistance:
>
> (a) Corps of Engineers civil functions;
>
> (b) Bureau of Reclamation projects;
>
> (c) Federally constructed watershed and water and land programs;
>
> (d) National parks and recreation areas;
>
> (e) Wild, scenic, and recreational rivers;
>
> (f) Wetland and estuary projects and coastal zones;
>
> (g) Federal waterfowl refuges;
>
> (h) Tennessee Valley Authority;
>
> (i) Federal assistance to State and local government sponsored watershed and water and land resource programs (Watershed Protection and Flood Prevention Projects and Resource Conservation and Development Projects).
>
> The Water Resources Council will, as appropriate, with the concurrence of the Office of Management and Budget, amend these standards to add to or delete from the list of programs to be covered.

If you have an interest in any project within the purview of the above agencies and do nothing to protect your interests, truly the "Ides of March" could be disastrous for you.

Address your comments before March 31, 1972, to:

Director
Water Resources Council
2120 L Street, N.W.
Washington, D. C. 20037

AND DON'T FORGET TO WRITE YOUR CONGRESSMAN!



Up with Water..
..for People

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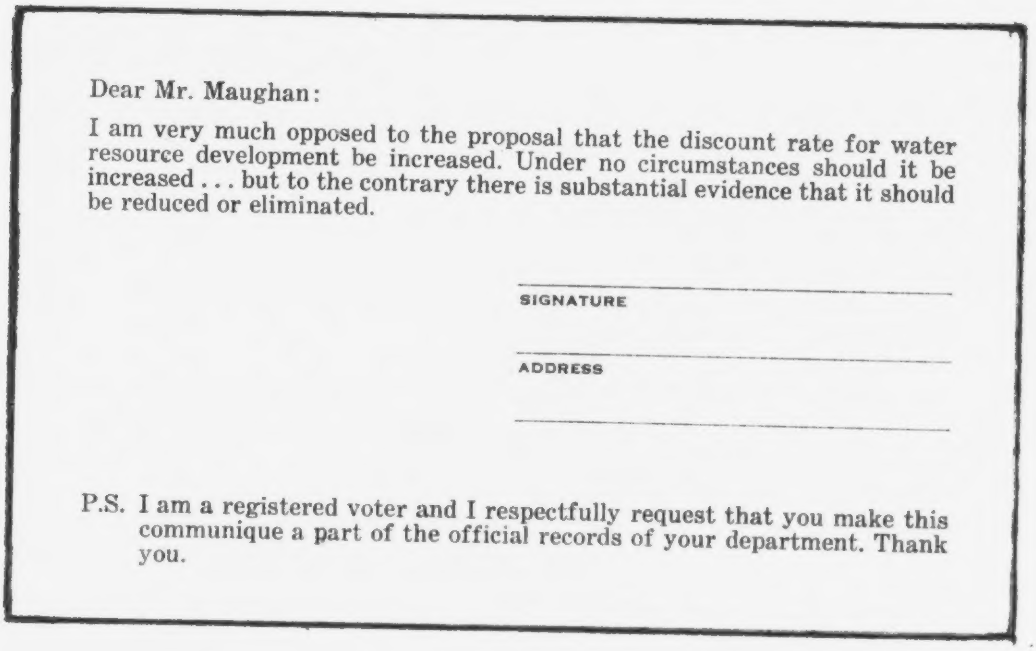
Mr. W. Don Maughan
Director, Water Resources Council
2120 "L" Street, N. W.
Washington, D. C. 20037



Dear Mr. Maughan:

I am very much opposed to the proposal that the discount rate for water resource development be increased. Under no circumstances should it be increased . . . but to the contrary there is substantial evidence that it should be reduced or eliminated.

SIGNATURE

ADDRESS

P.S. I am a registered voter and I respectfully request that you make this communique a part of the official records of your department. Thank you.

Sample of Texas Letter

Director
Water Resources Council
2120 L. Street, N.W.
Washington, D.C. 20037

Dear Sir:

I do not pretend to know the finer points of your "opportunity cost" principle or the 7 percent discount theory as you would apply it in your evaluation of water development projects, but I want to go on record as being opposed to any proposals that would slow down, restrict, cripple or stop the development of water resources.

The discount rate you propose, I am told, will make it extremely difficult, or impossible, for many of these projects to quality for federal funding. In the light of our impending water crisis, any criteria for evaluating these projects should be more liberal, not restrictive, in establishing a favorable benefit-cost ratio.

Also, I am unalterably opposed to your "grandfather" proposal which would force into a re-study all water projects on which construction has not started within five years after authorization. The simple truth is that few, if any, manor projects can be started that soon.

The whole nation needs water development, and we implore you not to enact any rules that would further delay the worthy projects in various stages of planning or construction.

Sincerely yours,

Sample of Great Lakes Form Letter

Director
Water Resources Council
2120 "L" Street, N.W.
Washington, D.C. 20037

Re: "Principles and Standards for Planning
Water and Related Land Resources"

Dear Sir:

I oppose the "Opportunity Cost" principle as the basis for determining the interest/discount rate because present guidelines pose a formidable gauntlet of governmental scrutiny which only the healthiest of projects can survive.

The "Regional Development" as a project objective should be included without any requirement for advance approval.

I advocate cost-sharing formulas in line with established procedures and consistent with local and state capabilities. Ours is a sovereign government which is commissioned to perform its functions in pursuance of constitutionally delegated powers for the general welfare. Its responsibility is to serve the public interest of American citizens, and not to sell back to them the output and benefits of their own facilities.

I oppose the standards specifying that all projects, if not started within five years after authorization, must be reviewed. The advanced planning can in some instances require more time than five years.

I question the wisdom of retarding water resource development at a time when our rapidly increasing population is placing heavy demands on the nation's limited water supplies.

Very truly yours,

Director W. Don Maughan, Chairing Washington D.C. Public Hearing, March 20, 1972.

II. ANALYSIS OF PUBLIC COMMENT ON ISSUES IDENTIFIED IN THE PUBLIC RECORD

The Inter-Departmental Work Group identified 23 issues in the public response to the proposed Principles and Standards for water and related land resources planning. On the issues identified collectively, 11,832 comments were made by 4,782 people or organizations. Views and/or comments were received from all States except one. The highest frequency of comments from any one State was 2,007. The issues were generally in the following major areas: (1) Implementation of the Principles and Standards, (2) Objectives, (3) Criteria for plan formulation and evaluation, (4) Program coverage, (5) Output and beneficiaries, (6) Cost sharing and allocation, and (7) Environmental Statement.

The treatment of each issue consists of a (1) statement of the issue as proposed in the Principles and Standards, (2) the frequency distribution of the views and comments on various sides of an issue, and (3) a summary of the comments on one or both sides.

1. ISSUES RELATED TO IMPLEMENTATION OF THE PROPOSED PRINCIPLES AND STANDARDS

Opposition to the Principles and Standards

Only 15 of the 4,782 responses expressed absolute, flat opposition to the Principles and Standards. They made no alternative recommendations to the Principles and Standards. Some gave no explanation for their opinion, while others stated that they would oppose anything which in any way impeded development of water resources.

Seventeen suggested a return to the Task Force proposal rather than adoption of the proposal as presented in the Federal Register.

A few more (6) suggested that existing legislation was quite sufficient and that Senate Document 97 should continue as the basis for evaluating all water projects.

Implementation of Principles and Standards Should be Deferred

The Principles and Standards on page 24144 state:

> "The purpose of this public review and hearing is to obtain, prior to formal Council recommendation for Presidential approval, the views of the interested public . . ."

Some of those commenting (20) recommended that the proposed Principles and Standards not be transmitted for approval until detailed procedures have been formulated and applied to projects now in the planning stage.

The Principles and Standards are largely only conceptual. It is difficult to imagine how they could be intelligently, equitably, and uniformly implemented until specific procedures are available. Specific procedures are of primary importance, and it is strongly urged that the Congress and the public be given the opportunity to investigate the effects and to understand more fully the full impact of the proposed Principles and Standards prior to Presidential approval.

In addition, Congress and the Administration should address themselves to the problems of funding, repayment, and cost sharing, particularly in connection with the identification of nonreimbursable costs.

2. ISSUES RELATED TO PRINCIPLES AND STANDARDS OBJECTIVES

Environmental Quality Objective--Make Top Priority

According to the Principles,

> "The overall purpose of water and land resource planning is to reflect society's preferences for attainment of the objectives . . . national economic development . . . quality of the environment . . . regional development . . ."

The objective of environmental quality is as follows (p. 24145 R):

> "To enhance the quality of the environment by the management, conservation, preservation, creation, restoration, or improvement of the quality of certain natural and cultural resources and ecological systems."

The importance of environmental quality was the third most frequently mentioned issue. A total of 1,541 respondents stated that not only is environmental quality essential for the well-being of everyone but it should be given top priority over the other accounts. However, the Principles and Standards do not state that any objective has priority over another objective.

Generally, the testimony falls into five broad areas: overall environmental concern, insure demands do not exceed resource capabilities, relationship to economic factors, development versus preservation, and need for better environmental studies.

Overall environmental concern.--The proposed Standards do not go far enough in the preservation of the environmental quality. Environmental quality deserves the highest of priorities for there is but one life to live on earth and one earth to live it on.

Blind progress can no longer be tolerated. The long-range effects upon wildlife, natural benefits in beauty and recreation, historic values and other aesthetic and intangible benefits must weigh heavily when balanced against the proposed benefits. Had there been strong enforceable guidelines before a dam was started, the legal action that now exists might have been avoided.

For the Federal Government to assign no priority to environmental quality over the monocular development ambitions of narrow regional interests is an abdication of responsibility. The Federal intent in the final adoption of new planning standards should address itself to what might be called autonomy of the physical world. Man cannot exempt himself with impunity from physical and biological laws. The repeated violation of them will surely prove to have consequences far out of proportion to what too many consider the minor price for such offenses.

Public opinion polls indicate public anxiety and anger regarding the deterioration of our environment and the accelerating disappearance of natural beauty in their surroundings. The environment will suffer further depredations and degradations unless it is made definitely and unmistakably the prime consideration in water resource planning.

Society is rapidly reaching a point where it can ill-afford to impose manmade structures on our few remaining free-running streams. It cannot afford to continue to channelize streams under the guise of flood control when, in so doing, the potential flood waters simply move downstream to a different area while at the same time violating all of the principles of sound fish and wildlife management and destroying vital conservation values. Bird populations are indeed indicators of our environmental quality, and their present warning of deterioration is clear.

Insure demands to not exceed resource capabilities.--The prime concern is to insure that human demands fit and do not exceed resource capabilities for accommodating people's activities and wastes. Properly executed plans and subsequent development can benefit the resource base and insure its continued functioning for present and future generations.

Top priority in planning, construction, and maintenance should be given to the functioning ecosystems of the resource base which constitute the life support systems of all living matter, including man. Conditions are rapidly changing as the human population increases. Concentrations in certain localities often damage resources and cause vital ecosystems to malfunction. Functional ecosystems, such as streams, rivers, wilderness, grasslands, forests, wetlands, and estuaries, are being damaged through physical developments justified as flood control and navigation "improvements." These ecological systems support a wide variety of plants and animals, produce useful products, and recycle biodegradable wastes on a continuing basis without appreciable economic cost to man. Therefore, more ecologically sensitive evaluations and greater authority and use of nonstructural alternatives are needed to benefit functional ecosystems and avoid conflicts and debates over proposed developments.

Planned water and land development must be consistent with ecosystem functioning, not inconsistent or in conflict with it. For example, each river and stream must be recognized as a dynamic ecosystem consisting of its channel and associated flood plain from its headwaters to the ocean. Human activities consistent with maintenance and enhancement of the hydrological-ecological system should be permitted. Sustained functioning of ecosystems prevent resource degradation and destruction, enhance multiple public benefits from the resource base on a continuing basis, and minimize costly restoration expenditures.

The Water Resources Council should give serious consideration to incorporating the concept of life-cycle planning in the planning process. Life-cycle planning would require that any proposed water resource plan specifically state and evaluate in quantitative terms the environmental impact of the proposed project during the exploration, planning, construction, operation, and, if appropriate, the restoration stages. Recognizing that future generations may, and probably will, attach increasing values to the dwindling stock of natural environmental systems over artificially improved water systems, a likely cost of the current human alteration of water and land ecosystems is the cost of eventually restoring these systems to their natural state.

The basic thrust of the Principles and Standards must be changed from economic development to environmental quality so that emphasis will be placed upon those restorative measures which will repair environmental damages and plan any new developments within the natural resource carrying capacity without damage.

It is significant that there is a sizable body of opinion among environmental scientists warning us that we cannot continue to manhandle nature in the same old ways without engendering dire results. At the very least, any judicious person must conclude, we should start being exceedingly cautious immediately! Assigning environmental quality priority status would make it more difficult for environment-damaging projects to be recommended and funded. A project should not be authorized unless it is consistent, in all respects, with sound environmental principles. It is only reasonable in the future that this concern for the environment should have top priority until such time nature is better understood and some progress toward that National Environmental Policy Act goal of living in harmony with nature is made.

Since widespread awareness of ecological integrity and interdependence in natural resources systems is of recent understanding, the approaches to enhancing, preserving, and managing environmental quality are in their infancy. In that respect, the Principles and Standards have a relatively narrow perspective of environmental conservation. The fundamental dependence of all life forms on productive ecosystems is not truly integrated into the conceptual statement of the Environmental Quality Objective. Perhaps the phrase is deceiving, since it is not merely Environmental Quality that we seek; the Objective must be to preserve not only for enjoyment, but for survival itself.

The object of achieving Environmental Quality should be given priority among the objectives. Any plan or project which would or might inflict significant environmental damage as judged by competent authorities should be rejected in the planning process.

Examples of damage which should cause abandonment of a plan or project are:

1. An irreversible effect on any significant natural value for the sake of a short-term gain.
2. The destruction of any habitat or micro-habitat which is of relative importance within its biotic community or the biome of which it is a part. The importance of such habitat should be judged on the following three points: the basis of its individual species makeup; its general frequency of occurrence in nature; its frequency of occurrence (natural and residual) and location within the biome or the biotic community (i. e., whether it is typical or peripheral), together with combinations of these factors.
3. Any action which would cause a material reduction in the numbers of any faunal species within the United States.
4. Any action materially reducing the resilience of an ecosystem.
5. Any action materially reducing species diversity within an ecosystem.
6. Any action proposed in which the environmental impact is substantially unknown. In such case, the burden of proof should be upon the planner and the decisionmaker to demonstrate that the contemplated action would cause no significant environmental damage if implemented.

Biological resources and ecosystems are vital to the survival of mankind. They are also the elements of the environment most often affected adversely by water resource projects. Other environmental elements often adversely affected by water project development are the aesthetic and scenic aspects, archeological, historical, geological, and other natural resources, as well as the quality of air, water, and land.

It was recommended that subsection II-B, page 24145, of the Principles and Standards be amended as follows:

> "To strive for environmental quality by the preservation, maintenance, or restoration of natural and cultural resources and systems; and by rejecting any action which might cause significant environmental damage."

Plans and projects should not rely on benefit/cost ratios for their implementation, but on environmental indices. All natural and cultural resources and ecological systems should be given full consideration.

Relationship to economic factors.--There is a need first to learn about the environmental consequences people can live with, and then worry about the economic factors needed to implement only those changes that are tolerable. Limits of exploitation of natural resources need careful investigation and substantially more articulation than they have received in the proposed Principles and Standards. In short, there is a need to find out what man's activities will do before, not after, he does them.

Cleaning up the environment and preserving ecological stability and our natural resources must be given the highest priority. This objective is inextricably related to economic stability.

The Principles and Standards do not state that economic development should be compatible with the earth's ecosystem and that growth should be guided under compatible restraints. If man begins to incorporate respect for ecological systems into government institutions, a stage of equilibrium can be reached and our wants can be geared to the earth's limitations. There may be some faltering, but the will of the people can insure more stable conditions and hope for the well-being of man into the future.

The fundamental bias of benefit/cost analysis, with its emphasis on dollar values and quantified benefits, tends to tip the balance of the Principles and Standards in favor of those projects which involve construction of projects, granting of contracts, construction of physical facilities, and the expenditure of funds. It also tends to understate the benefits and advantages of alternative management programs which are based upon nonstructural activities, upon preservation and conservation of resources, and upon preserving options for the future.

The greatest need for strengthening the proposed Principles and Standards lies in a more complete and comprehensive specification of environmental costs of the development of water and related resources. Much greater emphasis should be placed on recognition and environmental analysis of water basins and environmental regions as total systems of interrelated resources. Because Environmental Quality is a superior good, characterized by high income elasticity of demand, national preferences are shifting toward greater emphasis on protection of undisturbed natural ecosystems.

There is growing recognition that some of the achievements of economic performance in the Nation have been purchased at an unnecessarily high and unacceptable cost in terms of environmental damage. The public should not be misled into thinking that environmental values were taken fully into account by the Water Resources Council simply because "economic methods" are included in the analysis of proposed projects.

Development versus preservation. --The application of the Principles and Standards as presented will lead to a decline in the quality of the environment of this country. The Principles and Standards are biased against the preservation of the environmental values which many people regard highly.

The materials presented in the Principles and Standards tend to equate development with environmental improvement. In reality, development, in the sense of rearranging the environment, may be more destructive than its absence. Furthermore, despite a recent decision by the Supreme Court in which it interpreted the Federal Power Act as requiring consideration of opportunity costs of development, the Principles and Standards make no explicit provision for such accounting in the newly revised National Economic Development account. The measurement of benefits that might result if a free-flowing river is left in its present state, for example, is not explicitly included in the new Water Resources Council methodology. Since the National Environmental Policy Act has also been interpreted to require a consideration of the cost for all alternatives to any proposed Federal action having possible deleterious effects on the environment, this omission represents a serious shortcoming of the new guidelines.

The Water Resources Council approach classifies deleterious environmental effects into physical units (miles of free-flowing river inundated) which are then placed in the adverse Environmental Quality account. Any positive environmental effect, on the other hand, would be recorded in both physical units (e.g., acres of lake and beach footage caused by damming the river in the Environmental Quality account) and monetary units (recreational boating, fishing, and swimming benefits on the new lake in the National Economic Development account), which represent a heavy pro-development bias.

An imbalance exists between development and preservation, since only by selecting the latter does society retain both the option to develop and the option to preserve the water resources for the future. This is vital and must be considered when an irreversible decision to change a water resource is made and the project developed. By failing to include this, the Principles and Standards exhibit additional biases in favor of project development. This omits a large cost consideration from the project evaluation.

A related omission is that in a growing economy those resources in fixed supply, which are not producible by man, may be expected to appreciate in value over time. On the other hand, goods and services for which substitutes exist may have a unit value which might be expected to decline over time relative to resources which are both unique and fixed in supply. Accordingly, the preserved resource (if properly viewed as a nonreproducible gift of nature with no close substitutes) may be expected to appreciate over time both in an absolute as well as a relative sense when compared with project development benefits.

The development of water resources is one of the most controversial issues. The complex bio-socio-economic system that presently exists in delta regions is very productive in cash crops and saw timber as well as fish and wildlife. Will such deltas be as productive or as pleasant to live in when stripped of their forests and wetlands--when virtually all of their natural watershed system is converted into ditches and canals? Federal, State, and local resource agencies seem singularly unable to answer these questions, and yet they are still playing poker with our water resources and our land. Once the remaining bayous, rivers, and streams are ditched or dammed, they cannot simply be bulldozed back into place if construction agencies have made the wrong decisions.

Without some drastic action taken to protect the water resources of the Nation as well as to remove pollution, man may well wipe himself out. The presumption must be that any manmade change in a natural river system is ecologically unsound and unwise for the future well-being of man; the burden of proof to the contrary should be on the developer.

The real problem is too many people, living in the wrong places, and living in a way which is in too great a disharmony with the natural systems which support us. Some disruption of natural systems is necessary for man as a species to exist, but there is a point at which the demands on our natural resource base are too great. When we have to destroy one of the only natural areas near the fastest growing metropolitan area in a state to augment low flow once every 4 or 5 years, to allow farmers in the flood plain to grow more crops, and to create more places for people to motorboat, then we have reached the point where we are making more demands on the natural resources than are for our own good.

The Principles and Standards should include a listing of rivers, streams, and lakes on which development should be excluded, or at least delayed for a decade, so that a proper and adequate study can be made to determine which should be accorded scenic river status, which should be set aside for educational or scientific purposes, and which should be made into national recreation areas. If the Water Resources Council cannot at this time compile such a list, then a section should be added to the Principles and Standards providing for the compilation of the list.

People are sick of seeing our Nation's most fertile valleys obliterated with dams, highways, and shopping centers. If given a choice, we may be wise enough to choose to back off and give Nature a chance to restore and replenish the earth. Realistic standards should be established to protect our heritage. Construction interests continue to ravage our land and waters and standards are necessary to assure the establishment of parks and the preservation of rivers and wildlife habitat and to protect the country from overdevelopment.

Need for better environmental studies.--Environmental quality should be given a high priority in the basic objectives. Because of the difficulty in placing a monetary value on environmental factors, these important factors are often overlooked or downgraded in the final decisionmaking process. Funds should be allocated to develop better methods for quantifying ecological data, making it measurable and meaningful to legislators and others involved in evaluating these data. Attempts should be made to reduce these data to monetary units whenever possible so that it can be compared with national economic development, regional development, and social objectives.

To adequately inventory the biota of a proposed water resource project, a staff of biological specialists, the assistance of many nonprofessional workers, and the funding to meet the basic expenses of such essential research are required. However, on one proposed project, about $3.3 million of Federal tax money has been spent on planning and land acquisition for a dam, while the only biological studies which are known to have been made of the valley have been made by independent biologists, largely at their own expense. Provision must be made in the Principles and Standards to adequately fund the basic expenses of a research group of ecological and biological specialists to make a biological survey and to compile carefully annotated and documented floral and faunal lists to evaluate the environmental impact of such a project.

The most important move for protecting our resources would be regional reconnaissance surveys of the biological and physical environments for all of the United States. This would produce basic data as to the available resources and those areas of the land that should be left undeveloped or developed only after very strict reviews of environmental impact statements prepared for State and/or Federal environmental commissions. States must be encouraged to protect their resources after an inventory of these resources has been made and the capabilities of the land determined.

Regional Development Objective--Drop or Retain

Regional development is proposed as one of the three objectives of water and land resource planning. The objective is stated on page 24145, section II C, of the proposed Principles as follows:

> "To enhance regional development through increases in a region's income; increases in employment; distribution of population within and among regions; improvements of the region's economic base and educational, cultural, and recreational opportunities; and enhancement of its environment and other specified components of regional development."

However, there is a restriction on the Regional Development Objective on page 24147, section V A, as follows:

> "The components of the regional development objectives are to be considered explicitly in plan formulation in a particular planning activity only with advance approval."

Other sections within the Standards also deal with this topic. These are section II D 3, page 24152; section III E, page 24162; section V B, page 24190; and section VI, page 24173.

The public comments expressed three major concerns related to the Regional Development Objective. There were 977 comments that the regional objective should be completely dropped and 316 that the Regional Development Objective should be restored as a full and equal objective with National Economic Development Objective and Environmental Quality Objective. Thirty-five respondents wanted to know who or what agency will direct the use of the Regional Development Objective as proposed and what criteria are to be used.

Regional Development Objective should be dropped from the Principles and Standards.--There were varied comments recommending that Regional Development be completely excluded from the Principles and Standards as an objective. The thoughts expressed are as follows:

Regional development should not be considered at all in the Principles and Standards because it is already a primary objective in the Tennessee Valley Authority Economic Development Regions and other authorities established by Congress. Also, the inclusion of regional development as a nationwide objective is a possible means of circumventing legislative authority by water resource developing agencies. Since adequate authority for regional development is included in ongoing programs, there is no need for additional incentives for regional development.

The Regional Development Objective should be dropped as a planning objective because it will lead to more environmentally destructive projects. It contains serious economic flaws and seriously neglects the probable real costs of water development projects to the Nation. Moreover, agencies which plan water resources projects do not have the knowledge to be able to compare the benefits of a dam in one area with all the other ways that this money might be spent, such as education, pollution control, etc.

Inclusion of the Regional Development Objective will result in an overstatement of a project's benefits and an understatement of its costs. If properly designed, the National Economic Development account will include all of the benefits and costs shown in the Regional Development account. However, the benefits of most water projects accrue mainly to the locality or region where the project is located, while the costs of a Federal project are spread over the whole Nation. Hence, the Regional Development account will almost always show a large surplus of benefits over costs, no matter how unjustified the project may be.

There are no well established correlations between water resource projects and Regional Development. This casts real doubt on the merits of using a Regional Development account. The Principles and Standards do point out that the Regional Development account is to include not only increasing the region's income but also enhancing the quality of the environment in the region. However, the same agencies that did the planning under the old Principles and Standards will still be doing the planning under the new Principles and Standards. Therefore, the environment of a region is not likely to be given proper consideration when the Regional Development account is being used.

The Regional Objective should be eliminated as such. The Regional account should be explicitly associated with regional subsidies, for which purposes it serves. The Regional Development account is merely subsets of the other national accounts, so when a regional account is more positive or negative than a national account, it is because other regions carry the remainder of the account. If such a subsidy is recognized, then analysis of plans with respect to national and regional goals might proceed more clearly. The regional account information might serve its purpose more fully if it were a regional impact statement in the National Economic Development or social accounts, rather than equivalent to the other accounts. All values that would accrue nationally, such as utilizing the unemployed or underemployed of a region, should be included in the National Economic Development account.

The Regional Development Objective should be eliminated as a basic objective and included under the National Economic Objective. The four-account system should then show three types of beneficial and adverse effects and two levels of incidence.

The reasons for eliminating the Regional Development Objective are:

a. To prevent benefits from being counted twice (once for National Economic Development and once for regional income).

b. To reduce the "porkbarrel" subsidy approach used in the past. Such an approach is still possible with the proposed Principles and Standards, which favor special-interest groups that do not have to pay the costs but receive project benefits.

c. To insure that transfers of benefits from one region to another will be better identified (for example, an increase in crop production in newly irrigated lands of a reclamation project may result in a decline in value of that crop in other regions).

Regional Development should be deleted as a separate account for the evaluation of alternative plans. The expenditure of Federal funds in any region of the country for any purpose is likely to have a stimulating effect upon the economy of that region. If that stimulating effect is to receive prominent display as a separate account, it can provide meaningful information only if all other alternative schemes for injecting Federal funds (water resource or otherwise) into that region are studied in equal depth and are displayed with equal prominence. Such a task is far beyond the capabilities of present planning agencies. Even if the capability were developed by existing agencies, the conflict of interest inherent in an agency which is involved in both planning and construction could lead to a preference for water resource development upon which the continued existence of the agency is dependent. Such agencies cannot be reasonably expected to evaluate impartially the alternative of any water resource development.

Benefiting a region that is poor does not necessarily benefit the poor in the region. On the contrary, it quite frequently results in an unjustified subsidy to a few. A prime example occurred in the case of a certain dam project. Refinements in planning subsequent to the authorization resulted in a project in which over 70 percent of the benefits claimed accrued to the owners of the relatively small, well-defined, and essentially undeveloped flood plain of the river by way of providing a moderate degree of flood control for these lands. There were no cities, towns, or communities located in the flood plain. There was only one permanent place of human abode located in the flood plain, and it was situated on a small rise which gave it sufficient protection against all floods of record. Principal uses of the flood plains were woodland and pasture. No important crops were produced on it.

The direct beneficiaries of any flood protection to be provided in the flood plain are the owners. A total of 72.2 percent of the land was owned by 14 individuals and families and 2 corporations, one of which owns 25.8 percent. The remaining 27.8 percent of the land was owned by 60 individuals and families who own an average of 84 acres each. Known out-of-state interests own 39 percent. Where the beneficiaries of the principal purposes of the project can be identified with precision, the beneficiaries must be required to pay for some portion of what is, in effect, nothing more than a Federal subsidy for each of these landowners.

If the Regional Development Objective is not deleted, at least the procedures for displaying it should be amended to require the disclosure of relevant information.

The Regional Development Objective is fraught with the same formulation problems as the social well-being objective which already has been dropped by the Water Resources Council from the Principles and Standards. In the first place, "The Delineation of the Region or Regions" is a very difficult task (page 24170 in Principles and Standards). States do not necessarily constitute viable regions. River basins which have been the planning regions for many purposes have far more of an ecological than an economic relationship. With the modern technology in communications and transportation, the regional concept in an economic sense has very limited application.

The problem is illustrated in a Task Force report field test on a project where the impacts on the "project region" (a State), the "contiguous region" (two other States), and the national view were tabulated. The conclusion was that any economic gains projected for the project region were substantially offset by losses in the contiguous regions and national accounts.

Opposition to the Regional Development Objective should not be construed as acting adversely to the economic interests of a State. Reclamation associations particularly have urged Federal expansion of irrigation in States without regard to any national economic-social impacts. Statistics prepared concerning the net migration from counties in a certain State, indicated by the 1970 census, established that most counties having substantial irrigated farming lost population between 1960 and 1970. Farm ownerships are consolidating and the number of people on the farms is declining. Increased irrigation may increase production but it is not much help to people. It would appear therefore that the Regional Development Objective would permit an alternative approval of an otherwise unacceptable project because both beneficial and adverse effects are confined too narrowly.

The Regional Accounting approach is questioned further. For example, a decrease in welfare payments is treated as a regional adverse effect (E, 1, b, (4), page 24162 in Principles and Standards), and wages as a benefit ". . . the net additional payments to the unemployed or underemployed resources should be measured as a beneficial effect." There should be more thought given to the reallocation of economic resources. Instead of spending money on a potentially environmentally destructive water resource project, the money should be reallocated by putting people back to work reconstituting water courses that are already there. New perspectives should be applied to water resources; restoration, reconstitution, and redemption may have more important economic meanings for underemployed or unemployed people who live in a region than projects that are designed, built, and operated by outsiders who sometimes take much of the project money out of the region in which the project is built. The regional recycling idea for natural resources can be more important than adding to the economic well-being of non-local banks and construction companies. Welfare aid through water works may be politically appealing, but does little for people or the environment.

The Regional Accounting approach might also be responsible for imbalance and misallocation of financial resources. For example, if money is to be spent on a levee in a region, this development could deprive citizens in some other region of pollution control benefits. Explicit accounting should be done for interactions beyond one region. Accounting that balances region with region is necessary.

Additionally, it may be wise to think about equalizing the higher benefit/cost ratio for any water resource project with the highest benefit/cost ratio of any foregone government project. For example, if the government foregoes projects to improve urban health and welfare that have a benefit/cost ratio of 2/1 in favor of a nonurban water resource project, then the minimum benefit/cost ratio for that water project should be at least 2/1. It is desirable that both nationwide and regional interaction analysis and planning take place rather than fragmented agency planning based on the questionable suggestion of isolated regional economic planning. If a regional accounting system is to be used, it is imperative that it follow natural geographic watershed and water basin boundaries rather than political or social boundaries.

Full restoration of the regional development objective; and if not given equal status, then who will give approval for its use and under what circumstances.--Some comments received requested that the Principles and Standards clearly spell out who will approve the use of the Regional Development Objective. They ranged from the simple question of who to the flat statement that Congress had already given advance approval for its use under Section 209 of the Flood Control Act of 1970 (P.L. 91-611).

Further concern was expressed that the approving entity be familiar with a particular region's problems, having the interest and expertise needed to analyze them. The point that the decision should not be administrative but Congressional was expressed by most of those who wanted the Regional Development Objective fully restored.

The criteria for approving use of the Regional Development Objective was omitted in the proposed Principles and Standards. It was speculated that the criteria will be based on some analysis of national needs supplied by a region perhaps as identified in the OBERS projections.

It was also stated that this requirement of prior approval will be cumbersome, expensive, time consuming, and, at worst, completely nonoperational.

Various respondents pointed out that Regional Development was the heart of water development projects. Water resource planning in the United States has grown out of attempts to deal with local or regional problems, such as flooding, inadequate water supplies, high cost of transportation, etc., and should continue to do so. The diversity of an area as large as the

United States requires that each region be given the individual attention by the use of the Regional Development Planning Objective. Each region has its own peculiar problems of immobility of labor and resources as for example the Appalachian area in the East and the Four-Corners area of the West.

Comparatively speaking, the Regional Development Objective fulfills the basic need of the individual to the greatest degree. It is the only objective consistent with the growing awareness of the need to slow urban migration and stabilize rural areas.

Another expression indicated that a particular region has experienced a 12-percent population decrease in the last 10 years and the Regional Development Objective is the principal vehicle of hope for the future.

The Regional Development Objective without equal status was considered inconsistent with the whole tone of the proposed Principles and Standards, which includes multiobjective planning and maximum input from State, local, and private entities and individuals. For example, on page 24188, the Principles and Standards state: ". . . Essential that planning procedures articulate the full range of choice available . . ." On page 24149, "Regional and river basin studies will involve federal, state, and local interest in plan formulation and will identify and recommend action plans . . . they will be multi-objective in nature." On page 24193, "The recommended plan should be formulated so that beneficial and adverse effects . . . reflect . . . the priorities and preferences expressed by the public at all levels to be affected by the plan."

The exclusion of Regional Development as a planning objective prior to the plan formulation stage would certainly preclude consideration of the full range of available choices.

The value of multiobjective planning to the States and regional planning groups will be severely limited if regional development is not given equal status. In fact, it is likely that any State agency would be hesitant to participate in a planning effort without a regional or State viewpoint because of its responsibilities to the people of the State. To participate would place the State planner in something less than the position of being a full partner in the planning process. This condition would tend to subordinate the State and local interests to those of the Federal planner.

Ignoring Regional Development, or at least subordinating it, would contravene the long-standing expressions of Congress. The Flood Control Act of 1970 (Public Law 91-611), Section 209, states that "It is the intent of Congress that the objectives of enhancing regional economic development, the quality of the total environment, including its protection and improvement, the well-being of the people . . ., and the national economic development are the objectives to be included in federally financed water resources projects . . . ." Since this is the intent of Congress, universal approval should be given for the use of the Regional Development account. It might be interpreted as a mandate to the Water Resources Council to restore the Regional Development account to full status.

Other comments recommended a return to the report of the Special Task Force, July 1970, which was considered to be in harmony with Congressional interest and did include Regional Development and social well-being as full objectives.

It was recognized that if Regional Development was fully included, care would be needed to insure that the benefit accounts should be comprehensive and exclusive to prevent double counting between the national and regional objectives. Requiring such accounting would be valuable since impacts would have to be disaggregated on geographical lines, thus helping to identify the results of project development.

Another thought presented was that the Regional Development Objective should be included fully, but with two stipulations: (1) require cost sharing on a variable basis of the project costs allocated to the Regional Development Objective, and (2) provide adequate assurance, before the start of construction, that the appropriate non-Federal public interests will make the necessary public expenditures and control land use in such a way that the opportunities created by the project for economic growth will have a high probability of occurring.

These suggestions were made with the belief that water resource development can revive a sagging economy but that often the full potential is missed because of unwise public and private activities. Also, the requirement for assurances of appropriate change before construction brings the issue into the open. Thus, regional needs would be clearly defined before a project is constructed.

Additional comments were directed to specific components of the Regional Development account for establishing beneficial or adverse effects. Page 24146 of the Principles and Standards states: "The value of increased output of goods and services from a plan to the users residing in the region under consideration . . . ." Such a limitation of benefits only to users of output in the region is too restrictive. On page 24146, it states that the loss of assistance payments to unemployed or underemployed labor residing in the region is considered an adverse regional income effect. This might be economically sound but it penalizes a plan which would assist in making those unemployed or underemployed resources self-sufficient.

Yet another point raised is the appropriateness of including population distribution as a component of the Regional Objective. This is already a national problem that is yet undefined and must be included in the National Economic Development Objective.

Social Well-Being Restored as a Major Objective

The Principles and Standards state on page 24145:

> "The overall purpose of water and land resource planning is to reflect society's preference for attainment of the objectives to enhance national economic development, to enhance quality of the environment and to enhance regional development."

Further on page 24164 that

> ". . . beneficial and adverse effects on social factors will be fully reported in the system of accounts for each alternative plan."

Section V, Plan Formulation, page 24168, also provides that

> ". . . the formulation of plans will be directed to meeting current and projected needs and problems as identified by the desires of people in such a manner that improved contributions are made to society's preferences for National Economic Development and Environmental Quality, and unless approved in advance for Regional Development."

The July 1970 Water Resources Council Task Force Report stated that the overall purpose of water and land resources planning is to reflect society's preferences for attainment of the objectives to enhance National Economic Development, to enhance the Environment, to enhance social well-being, and to enhance Regional Development.

The differences between the proposed Principles and Standards and the July 1970 Special Task Force report elicited comments. Restore social well-being to equal status as a major national planning objective was suggested by 151 people or organizations.

Individuals and organizations cited the following points:

In developing the revised Principles and Standards, there has been considerable backsliding and retrogression from admirable effort of the Task Force in 1970, particularly in abandoning the social well-being objective and restrictions on the Regional Development Objective.

Consideration should be given to the inclusion of explicit social objectives at the same level of importance as the three current objectives of water resources planning--National Economic Development, Environment Quality, and Regional Development Objectives.

If all development were viewed only in the light of the National Development Objective, very little would be accomplished. Social well-being should be a primary concern of government, especially government by the people and for the people.

Elimination of the social well-being account completely eliminates the local people from the consideration which is so necessary in total planning.

Dropping the social well-being account and relegating it to an accounting procedure is inconsistent with the needs of today and with the history of water and related land resource planning legislation and guidelines. It also violates an important concept in multi-objective planning--that no one objective has any inherent claim on how the water and related land resources of this Nation are to be used over any other objective or objectives.

The Principles and Standards treat social well-being only in terms of indicating the effects of projects formulated toward other objectives. In this age of unprecedented economic affluence, the elements of life, health, and safety should be given equal status with Environmental Quality and Regional Development. The cost allocation and repayment provision should reflect adding social well-being as a major national objective.

Environmental Quality and income redistribution to the poor and to depressed areas have become more important and national growth perhaps less so. Yet, water program planning in terms of standards and criteria continue to place principal emphasis on national economic growth and to use this objective exclusively in the formal benefit/cost analysis.

It is unreasonable to say that the effects of projects on the security of life, health, and safety, on the reduction of pollution and on other aspects of the quality of life shall only be noted instead of considered in the planning and approval of projects. People's lives and the improvement of them are the sole reason for planning water projects of any kind.

The Principles and Standards state that our government cannot plan a project for the purpose of saving human life, nor for public health and safety. It cannot even plan a project for which the saving of human life is one of several objectives, nor can it plan an alternative project in which the saving of human life is an objective for the purpose of comparing this alternative to projects where this is not an objective. Incidental benefits from saving a life can be displayed but this is very different from a project designed for that purpose.

One can presumably design a project to save the lives of fish and birds and moose under the Environmental Quality Objective, but not the life of man.

If social well-being is dropped as a major national objective, how else can planners prepare to meet the eventuality of the 100-year flood or storms of a larger magnitude? How else can planners utilize water resources to alleviate a threatened energy crisis? How else can planners make the water resource programs responsive to long-range social needs?

In regard to appraising long-range social needs, the recommendations in the recently released President's Commission on Population Growth and the American Future stated:

"Our consideration of the problem and prospects involved in this country's long-term future convinces us that an important dimension of policy formulation is being overlooked. This dimension involves the identification, study and introduction of actions with respect to future problems that may require lead times of decades rather than years to resolve. There is a need for continuous monitoring and evaluation of the long-range implications of demographic changes, of future resource demands and supplies of possible overload situations, and of the underlying trend in technology and patterns of social behavior that influence these factors."

The report went on to say that "sooner or later we will have to deal with water as a scarce resource."

A study of the preambles of various Congressional enactments dealing with water development programs will disclose that justification of these programs has been based in large measure on social objectives. It is difficult to define the Nation's social goals and an even more demanding task to show the beneficial and adverse effect of specific water projects in meeting these objectives. Such objectives are very real and more significant than ever today. Consideration of social well-being should be a vital part of the process of laying out various alternative plans involving water resource conservation and utilization.

Eliminating the quality of life as a national objective, thus limiting the Federal water resource programs to fulfill their legislative interest, is very questionable under the provisions of the Principles and Standards. Elimination of the quality of life as an objective adversely affects the formulation of flood prevention programs. Their evaluation on the basis of optimizing National Economic Development and enhancing Environmental Quality may result in program developments that do not meet acceptable levels of flood protection to rural and urban areas.

It is clear under the proposed Principles and Standards that important national social aims dealing with income distribution, population distribution, unemployment, and educational, cultural, and recreational opportunities are to be downgraded and undervalued or ignored in plan formulation.

Recommendations for New Objectives

Ten oral and written comments contained recommendations for considering objectives other than those spelled out on page 24145 of the Principles and Standards.

The recommendations received were generally as follows:

The statement of objectives should be completely revised. Careful reading discloses that the three objectives are largely economic, with most of the social factors dealing with income distribution. Two of the most important social concerns, recreation and redistribution of population, do not even appear under social factors.

The objectives should be three in number: a social objective, an environmental objective, and an economic objective. The economic objective could deal with both regional and national affairs.

The three objectives should have specific priorities, suggesting social first, environmental second, and economic third.

The approach in the Principles and Standards relies too heavily on economic evaluation. The decisions to proceed or not to proceed with publicly financed projects and programs should be based on social and economic needs and the total national interest --not continued economic evaluations. The Water Resources Council's approach is quite unsophisticated. It relies on complicated and imprecise economic evaluations. It appears that the economic guidelines are developed as a substitute for good judgment and public interest evaluation on the part of individuals who are supposed to be decisionmakers.

The objectives selected seem to be a poor choice. They are not in any operational sense "objectives." They are worthwhile goals but far too broad to serve usefully as objectives. Perhaps a better scheme would recognize a two-level classification of effects with regional versus national incidence as one level; economic environmental, or social type as the other.

The Environmental Quality Objective suffers from two persuasive conceptual deficiencies. The first is a failure to fully appreciate the essentially interactive character of physical-biological systems, with or without man. A second major flaw is the confusion of inventory and impact assessment features of ecological effects. The first two categories of effects listed in the Principles and Standards unfortunately enmesh the two activities.

Several other features concerning the Environmental Objective that are objectionable are:

1. The Principles and Standards require the evaluation of project effects on only "certain" or "especially valuable" aspects of the environment without providing any guidelines as to how or by whom such determinations of significance are to be made. (Here is a case where a systems point of view would be most useful.)

2. The Principles and Standards place inordinately heavy emphasis on recreational and aesthetic aspects of Environmental Quality.

3. Possible project effects on land use are not appreciated.

4. Possible secondary biological effects are not considered, nor is the difference between immediate and long-term effects.

5. Project effects on the consumption and supply of energy and natural resources are not evaluated.

6. The approach taken is a generally confusing and poorly organized laundry list, offering little aid to field personnel charged with carrying out such a project evaluation. (How much does it help, for example, to require, as in (A) (3) (b), "a descriptive-qualitative interpretation, including an evaluation of the effects of a plan on the designed or affected lake or lakes"? Isn't that what the Principles and Standards are for?)

7. The Principles and Standards fail to require an explicit evaluation of the significance (particularly biological significance) of the impacts identified. Though this is a difficult task, the bare information is largely ambiguous and of little value to the general public and to decision-makers. For example, an anticipated change in dissolved oxygen levels in a stream is useless information until it is interpreted in terms of the effect on fish or other organisms.

8. In view of the uncertainties involved in identifying and evaluating environmental impacts, the Principles and Standards should require estimates of both the probability and the degree of risk associated with anticipated impacts.

Some of the above difficulties could be at least partly alleviated if environmental effects were divided into three categories: aesthetic, ecological, and cultural. Guidelines for preparation of the ecological category might be something like the following:

For each ecosystem directly affected by the project, discuss the following:

1. Brief description of the system in terms of the primary subsystems of air, water, land use, and energy flow.
    a. Describe in terms of measure (or of least measurable quantitative and qualitative indices.
    b. Indicate direction and, if possible, the current rates of change in these subsystems.
    c. Identify any dis-equilibria currently affecting the system in terms of dependencies on other ecosystems, such as for major inputs of energy.
2. Describe briefly the major economic products of the system in terms of the following:
    a. Approximate distribution and ultimate fate of the product.
    b. Product content--natural or man-created.
    c. Energy and raw material requirements under current technology.
    d. Character of wastes and extent to which they are recycled by man-directed or natural processes.

3. Describe system expected without project at some future time in terms of (1) and (2).

4. Describe system expected with project at some future time in terms of (1) and (2).

5. Summarize with-without analysis in terms of the following:

   a. Differences in system diversity: spatial, temporal, and biological.

   b. Differences in system resiliency: ability to undergo incremental changes yet survive unanticipated shocks of epidemic proportions.

   c. Differences in system biological productivity: change in absolute levels or in the variety of "products."

   d. Differences in use rates and remaining stocks of abiotic resources.

   e. Extinction or significant population change in any biological species.

   f. Differences in long-term direction and rates of system change.

6. Summarize the most critical aspects of information presented in (4) with special reference to:

   a. Scale of biological or social significance: local, regional, national.

   b. Nature or risk involved in terms of probability and seriousness.

7. Discuss the adequacy of monitoring provisions included in the project plan or already available to access, on a continuing basis, critical aspects of the system, both during construction and following completion of the project.

The three objectives need redefinition. The National Economic Development Objective can remain essentially the same. Environmental Quality should be redefined as enhancement of natural environmental viability. Environmental Quality should be ecosystem-centered, which is man-inclusive, not man-centered. The Regional Development Objective should be eliminated. In place of Regional Development it is recommended that an objective to integrate full public participation at all planning levels to enhance democratic decisionmaking be added. This is a serious deficiency in the proposed Principles and Standards.

The social well-being should be strengthened by changing it to enhance social amenity and equality. There could be three subcategories: (1) personal health, which includes physiology and psychology; (2) aesthetic, social amenity including recreation and residential amenities of the regional development process; and (3) societal well-being, containing essentially contributions to decentralization of the urban pattern in the United States.

The National Economic Development account is both ill-conceived and misdefined. Many crucial components have been omitted. For example, Environmental Quality impacts are vital economic effects on society's scarce resources even though no market prices exist for many of these effects. Equality considerations have also been denounced from economic development. They should be a mandatory part of any analysis of benefits and costs.

Environmental consequences merit dollar values even though usually no market indicators of benefits exist. A means of developing a tradeoff system is necessary.

Use of the words environment and ecology as synonyms will no doubt cause confusion when at a later time one must identify environmental as opposed to economic and sociological aspects of water resource planning. It would be better to title the objectives as environmental objectives and then divide these objectives into economic, ecological, and sociological.

National defense and national preparedness are not mentioned under the title objectives, page 24145. They are important objectives.

A separate group of comments dealt with the nature of a regional objective and some aspects of regional responsibilities and regional benefits. The comments are as follows:

Planning should be directed toward identifying and solving problems of a local or regional nature rather than formulations under the National Environmental and Regional Objectives. The planning agency should state explicitly what those problems are early in the planning process and establish the solution as the objective. As a balance to this approach, there should be established national constraints. Included in these constraints might be:

1. National Economic Development. This traditional constraint requires that an honestly computed benefit/cost ratio be greater than unity. It reflects our concern that public funds be spent in such a way that the Nation's output of marketed goods and services is not reduced thereby.

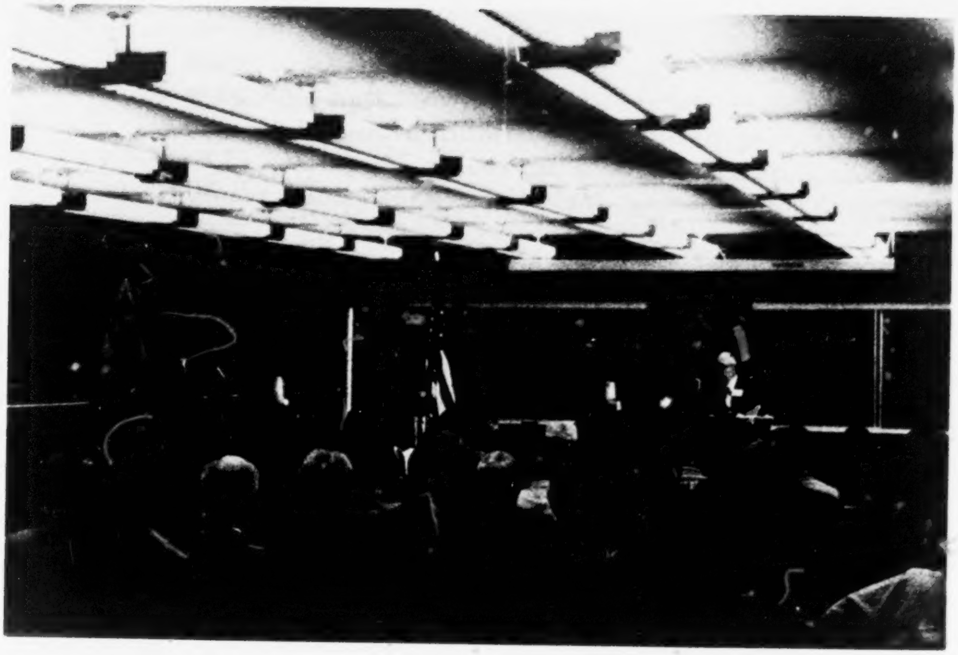
2. Income distribution. This constraint would require that a proposed alternative not result in a distribution of money income more unequal than it otherwise would be.

3. Equity. This constraint would require that the costs of an alternative be borne by those who stand to benefit from its adoption.

4. Diversity. This constraint would require that a proposed alternative not reduce the diversity of ecosystems, aesthetic resources, recreational opportunities, cultural systems, or, in general, social choices open to the Nation's people.

5. Resiliency. This constraint would require that a proposed alternative not increase the vulnerability of natural and social systems to unanticipated shocks.

6. Reversibility. This constraint would require that a proposed alternative result in no irreversible commitment of resources. However, national constraints, important as they are, should not obscure the real local and/or regional objectives. Both should be already stated.



San Francisco Public Hearing, March 13, 1972

3. ISSUES RELATED TO CRITERIA FOR PLAN FORMULATION AND EVALUATION

Discount Rate--Higher or Lower

Proposed Principles and Standards specify on pages 24146-47, 24166-67, and 24193, among other things, as follows:

> "The discount rate will be established in accordance with the following concept: The opportunity cost of all Federal investment activities, including water resource projects, is recognized to be the real rate of return on non-Federal investments. The best approximation to the conceptually correct rate is the average rate of return on private investment in physical assets, including all specific taxes on capital or the earnings of capital and excluding the rate of general inflation, weighted by the proportion of private investment in each major sector."

* * * * *

> "The average rate of return on non-Federal investments is estimated at 10 percent."

* * * * *

> "The revealed preferences of the Federal political process clearly indicate a desire to transfer income to the people in specific regions by subsidizing water resource projects. . . . Accepting the legitimacy of the political process in determining income transfers and subsidies, the use of a low interest rate, unfortunately, is often an inefficient instrument for these purposes because it also biases the design of these projects toward those with higher near-term costs and lower near-term benefits.
>
> "Recognizing both the objectives of subsidizing water resource projects and the objective of an efficient combination among and between Federal and non-Federal investment activities, a 7-percent rate will be used for evaluating water resource projects during the next 5 years. Use of a 7-percent rate will facilitate implementation of one of the basic purpose of multiple objectives planning by allowing more comparable consideration of environmental quality objectives. Less capital intensive projects, scaled mainly

to meet near-term needs, will result in relatively more efficient use of Federal and non-Federal investment toward meeting increasing critical water needs, given current budgetary constraints."

A total of 1,667 individuals or organizations thought the discount rate should be higher (8 to 25 percent) and 121 comments were made in favor of the discount rate as proposed at 7 percent. Both favored the Opportunity Cost approach in setting the discount rate. A total of 1,431 individuals and organizations were for a lower discount rate (0 to 5 3/8 percent). These latter comments generally addressed themselves to the method of calculating the opportunity cost.

Arguments for a higher discount rate.--The following comments are illustrative of the responses received by the Water Resources Council recommending revision of the Principles and Standards with regard to a higher discount rate. Capsulizing the comments, all were in favor of employing the opportunity cost concept as the basis for selecting the discount rate used in evaluating and selecting water projects, a discount rate equivalent to the opportunity cost of capital in the private market, which is 10 percent.

The discount rate, used to evaluate the costs and benefits of water resource projects, has been in the past unrealistically low. While this rate has been increased in recent years, the current discount rate of 5 3/8 percent remains low in terms of the opportunity cost of capital. Current policy provides a built-in bias which results in understating project costs, favors public versus private undertakings, and precludes efficient use of the Nation's resources.

(a) Opportunity cost concept.--Use of the rate based on the opportunity cost principle in evaluating Federal investments is necessary to achieve equity from the standpoint of the Federal taxpayer who must finance Federal investments. The use of a discount rate based upon the opportunity cost concept is analogous in most ways to other price ratios, e.g., the prices of future goods relative to present goods.

To approve the prices of future goods or electric power that emerge from a voluntary exchange system is, to be sure, a value judgment. If one disapproves a market or voluntary exchange system, he may urge, as his personal value judgment, the adoption of some other "social" price of electric power or some other social discount rate. Most economists, however, attach value to a market or voluntary exchange system and urge that cost/benefit analyses use estimates of the market prices of inputs and outputs including capital. The market price of the latter implies using a discount rate that reflects the estimated opportunity cost of capital in our society.

A corollary to the above argument is that the first idea, that cost and benefits (or utility) be kept conceptually distinct, accepts the notion that decisionmaking affecting the allocation of scarce resources requires some coherent way of ranking alternative uses to which resource may be put. This means providing a measure of alternative uses that are given up as a result of a particular course of action. The second idea, that government employ the same "counters" as does its citizens, rests on the belief that the cost of government resource-using activity should be revealed in terms of the things the citizens are asked to give up, through the workings of the government's use of coercive financial devices like taxation and money creation . . . contends that the cost of capital inputs should be placed on an equal basis with labor inputs. To use a rate of discount that departs from the private opportunity return, which the government can easily do because it is not obliged, for example, to lease or hire its capital goods as it hires labor, simply renders ambiguous the cost calculations of its resource-using activities.

Most resource-using activities permit substitution between different kinds of resources. Often, it is possible to substitute larger initial investment outlays for smaller annual or periodic outlays or vice versa, to achieve the given objective. In order to make feasible the substitution process, some interest rate explicitly employed to make rational decisions is required.

There is a class of Government resource-using activities which serves private ends by furnishing individuals instrumental services or products. For these activities, it is often possible to identify the individuals or groups who benefit from the Government operation. Government enterprises such as postal services, reclamation, and power projects are examples of such activities. It is also often possible for the Government to employ prices to ration the service and to finance the operation. To determine the appropriate price, it is necessary to employ a costs of capital. The Government may or may not use the price mechanism to ration the benefits or services the activities provide. To the extent that it does not price the service to cover the full cost of the project, including an appropriate interest cost, it provides users a subsidy in kind.

Other points were made with respect to the use of the opportunity cost principle as a basis for determining the discount rate. One argument expressed the concern that the discount rate be set at a level which equalizes the competition for funds between water projects and other more socially valuable public programs. Using the opportunity cost principle, any project which would be viable at a 10-percent rate would have to demonstrate a wide range of benefits to broad segments of the public. Further, social and economic programs that would deliver benefits only to a small sector of society would have to be rejected. It was felt concurrently that those who advocate a discount rate below 10 percent would have to grant water projects a competitive advantage that is demonstrably unjustified under all relevant criteria and in lieu of other socially oriented programs.

Critics of the social time preference position but who endorse the opportunity cost principle suggested that: The lower-than-private-sector discount rate implied by this position presumes that society has the desire to transfer more income from current to future consumers than it is currently doing. This presumption is not at all obvious. That the people would collectively agree to provide a standard of living to unborn generations greater than that implied by our current rate of economic growth is highly doubtful. It seems especially so when these same people seem unable to meet adequately the needs of the hungry, the uneducated, and the sick in their own generation. Indeed it can be argued that we are currently devoting nearly 30 percent of GNP (gross national product) to providing for future generations.

The use of a public discount rate below that used in the private sector implies that resources will be transferred from higher return alternatives in the private sector to lower return alternatives in the public sector unless shadow costs in excess of nominal costs are used in the denominator of the benefit/cost ratio or if a cutoff benefit/cost ratio in excess of unity is applied . . . if the social time preference interest rate is used to discount future effects, a shadow price of resources used in the public investment should replace their nominal price. It should be emphasized, however, that if the time streams of returns from public and private investments are identical, the social time criterion preference with shadow prices is identical to the opportunity cost criterion. The opportunity cost concept of the public discount rate is not really in conflict with the time-preference concept. For, unless capital markets are grossly and systematically biased, marginal time preference and marginal opportunity cost will tend to be brought into equality by the millions of interacting saving and investment decisions continually being made in the private sphere. This does not necessarily mean that there will be one single rate of interest regardless of risk-pattern or time-preference of cash flows; rather, the market will generate many different rates of interest or rates of yield that will respond to risk and timing differences . . . thus, for any class of government investment, the rate associated with a private project of comparable risk and timing can in principle be found.

A number of the responses dealt with the issue that government investments were essentially as risky as those undertaken in the private world. In past practice, discount rates for government water-resource projects tended to be tied to the low quoted interest rates on government bonds. Since claims on the Federal Government are essentially riskless, no allowance was made for the fact that actual government projects were comparable in risk to private projects that could not be financed on a riskless basis.

The reason why risk commands a higher return in the private sphere has essentially nothing to do with the diversification problem, on which some analysts have mistakenly concentrated attention alleging the government's superiority over the private market when it comes to diversification. Rather, there are certain widespread social risks, for example, the business cycle, war versus peace, etc., which government projects cannot escape any more than private projects. The upshot is that past practice has set too low a discount rate for the evaluation of public projects. Not only has this led to systematic overinvestment in such projects, but it has also distorted their design in favor of excessive scale and slow time-return of capital.

The chief opposing view would maintain that planner's preferences as to the time-discount of returns, or the desirability of some classes of commodities as opposed to others, or the forms of risk to be undertaken, should govern choice of discount rate in place of what some think to be the arbitrary evidence of the market. According to some of the responses, the basis for this position is unclear with regard to (1) the assertion that the private markets are a highly imperfect mechanism, so that government decisionmakers can more accurately assess what cistizens' preferences really are, or (2) the contention that private citizens' preferences should be overridden by paternalistic planners. The first statement is incorrect. The second contention involves a value judgment that is inconsistent with a democratic society. Neither provides a convincing basis for rejecting the evidence of the private market as to the appropriate discount rate for government investment.

(b) Arguments for a 10-percent discount rate. --While there existed a number of opinions within the responses on how to measure the opportunity cost interest rate, the proponents of the higher discount rate thought that the social opportunity cost interest rate is the appropriate concept for determining the social discount rate and that this rate should be set at 10 percent, the opportunity cost of capital as discussed in the Principles and Standards: ". . . on net, it appears that the average of the marginal returns on physical investment in the non-federal sector is around 10 percent."

Some achievements of economic performance in the Nation have been purchased at excessively high costs in terms of environmental damage. The adoption of a 10-percent discount rate would give future importance to environmental protection based on the principle that environmental quality is a superior economic good, having a high elasticity of demand. As incomes and affluence grow, individuals and society attach a higher relative value to nonmaterial goods such as leisure, recreation, amenities, and environmental quality. However, recognizing that although the appropriate discount rate for evaluating future benefits is 10 percent, reflecting national opportunity costs, the proposed 7 percent produces a bias in the Principles and Standards in favor of development projects over environmental protection. Further, the proposed 7-percent rate not only will serve to hide the fact that certain projects are uneconomic,but will make any true evaluation under the National Environmental Policy Act impossible.

The most appropriate discount rate is 10 percent, and lowering the discount rate to reflect political decisions is an inappropriate procedure because it is usually inefficient and biased in carrying out those ends. It was felt that it would be more appropriate to use the 10-percent rate and apply any subsidies explicitly through the sensitivity analsysis or through explicit grants toward certain ends. One basis for the high discount rate is the fact that private enterprise must pay taxes. If the lower rate of 7 percent is used for projects, it would be appropriate to also require the projects to pay real or surrogate taxes as private enterprises would. Taxes would be considered a project cost because if the money were spent by private enterprise, they would earn the same (7 percent) return to society plus the value of the taxes paid.

Lowering the discount rate from 10 percent to 7 percent without paying taxes would, for example, have the effect of favoring high-investment projects at the expense of low-investment projects, such as the maintenance of natural environments, whereas Congress has apparently chosen to subsidize both.

One group, while recognizing the preferences of the Federal political process regarding the desire to transfer income to people in specific economically depressed regions by subsidizing water resource projects, questioned the use of a low interest rate to implement such subsidies. A low discount rate on public projects means the use of resources by the public sector which would otherwise serve society more effectively elsewhere. It distorts the relationship between shorter run and more durable projects favoring the latter at the expense of the former and it does not discriminate between regions or among income groups in the benefits of its subsidy. On all these grounds, it is strongly urged that the appropriate social discount rate be set at the opportunity cost of capital, i.e., the rate of return the capital can earn currently outside the public sector.

The use of a low interest rate is often an insufficient instrument for this purpose as it biases the design of these projects toward those with higher near-term cost and lower near-term benefits.

While a subsidy to particular depressed areas may be desirable, an indirect approach by providing benefits to water transportation may only have the effect of transferring a financial crisis from one economic segment and locale to another.

Reduction of the discount rate to 7 percent "to transfer income to the people in specific regions by subsidizing water resource projects" is neither necessary nor desirable. A blanket reduction in interest rate does not favor those regions to which such transfer payments would be desirable over time, which are congested, and for which further stimulation would be undesirable. Moreover, the lower income rate has the effect of distorting priorities, favoring the National Economic Development Objective over the others which are measured in nonmonetary terms. Better methods of making transfer payments can be devised. Even if water development projects are to be the vehicle of such payments, the choice between projects could still better emphasize the other, non-monetary social, environmental, and regional factors. This ploy of artificially reducing the distortions smacks of pork-barrel politics and has no economic justification.

Setting a price below the private opportunity return for only one input in production processes that require a larger number of diverse inputs distorts the production process itself, even though it serves the purpose of lowering the price of the outputs. Hence, applying in a crude way a social discount rate to water projects (or any other program) will cause them to be more capital intensive than necessary, and capital resources will have been wasted relative to attaining the objective of longer run economic growth which underlies the main objectives of the social discount rate concept.

Although the Principles and Standards say specifically that they are going to lower the rate to 7 percent in order to subsidize water resources because of perceived priorities, this is a pretty bad way to do it. It's a bad way because it's a distorting method of subsidizing. Because of the construction of the Principles and Standards, it distorts the subsidy as between environmental and nonenvironmental or development types of priorities. A clear application of social priorities following the Standards would have Congress choose developmental projects over environmental projects because of the dollar value of beneficial and adverse effects in the National Economic Development Account, etc.

The rate of 7 percent is recommended apparently in an attempt to subsidize developers. This reasoning is illogical and without foundation in light of apparent awareness of the preceding section of the Principles and Standards. Since 10 percent is the appropriate rate, then 10 percent should be used. Arguments have been made that a lower rate is justified since the government spending does not have the same degree of risk as spending in the private sector. This is not the case. Anyone who knows of the great cost overruns in government spending on myriad water resource projects and others, can appreciate the risk in government investment. Furthermore, the risk of putting money into water resources investment evaluated at 7 percent as opposed to a poverty program evaluated at 10 percent may be phenomenal, since the nonsupport of either project may be a substantial risk to society. Obviously, this is an element of risk which has seldom been considered, but must be seriously considered in the future. In addition, it is certainly proper that the U. S. taxpayer receive the same interest on his investment whether the investment be made by government or industry. This can be accomplished if a discount rate of 10 percent is used.

While recognizing that all investment decisions involve the same opportunity cost of capital, averaging 10 percent in the past, the very reasons which the Water Resources Council gave in suggesting a rate of 7 percent were applicable for a 10-percent rate: (1) the Federal political process desires to transfer income and (2) the cost of money to the Treasury and the taxes foregone through displacement of private investment. Two other components should be added to include:

1. If technological change occurs, it usually means that a project will be less useful in the future than it is in the present. If such a change is expected, a higher rate of discount can be used to approximate the technological change effects. By using a low interest rate when technological change is occurring, the advantages of development relative to preservation are overstated. Under such circumstances a rate higher than the social rate of discount would be justified for the purpose of evaluating the development alternative.

2. The length of time over which given future periods are meaningful depends upon the interest rate. The lower the rate the longer the period of meaningful analysis. Allowing the time period to approach the length permitted by the discount rate for the development alternative would overstate the benefits of Federal water resource development projects at the expense of the preservation alternative, unless prices which accurately reflect the increasing scarcity value of the preservation alternative are used.

Arguments for a lower discount rate.--During the period of public review and comments, a number of arguments were advanced by proponents of a lower discount rate. They rejected (a) the opportunity cost concept which proposes a 10-percent interest rate; (b) raising the interest rate in the interim to 7 percent; and (c) the proposition that more efficient uses of Federal and non-Federal investment is made possible by less capital intensive projects stated to meet near-term needs.

In broad terms, they argue that:

(a) The current proposal, which requires that the discount rate be established on the basis of the opportunity cost of money, reported to be 10 percent currently, is invalid and the resulting interim use of a 7-percent interest rate is unfair, inequitable, and contrary to the public interest.

(b) Such a rate will restrict water project construction which conflicts with the Administration's declared objective of strengthening the economy and reducing unemployment.

(c) Imposing the rate will make impossible the construction of many major water projects needed to meet economic needs, particularly in the Western States.

(d) It enforces a moratorium on planning of future water projects conceivably to a time when water shortages will occur leaving inadequate time for needed projects to be built.

(e) The 7-percent interest rate cannot be economically justified either on the basis of the average long-term interest cost on money borrowed by the Federal Government, or of the average private business.

(a) Opportunity cost concept and proposal.--The arguments of those against this concept concerning the Water Resources Council's language where it is stated that:

> "The discount rate . . . will be the average rate of return on private investment in physical assets . . ."
>
> or
>
> "The opportunity cost of all Federal investment activities . . . is recognized to be the real rate of return on non-Federal investment."
>
> or
>
> "The Federal Government should not displace funds in the private sector unless its return on investment is equal to or larger than that in the private sector . . ."

They disagree that a relationship exists between the average annual rate of return on physical assets held by the private sector and the proper discount rate for cost/benefit analysis of public sector water resource development projects. The attempt to determine the rate of return on "physical" assets "to the exclusion of money assets" is erroneous. It should be recognized that physical and money assets are inseparable; one rate of return cannot be calculated to the exclusion of the other because production requires a mixture of the two types of assets.

Under the opportunity cost concept an average annual rate of return is calculated by comparing the dollar return in each year of the study with the volume of physical assets as measured by financial records. Allowance is made for accrued depreciation, and by implication current physical depreciation is deducted before the rate of return is calculated. However, this process does not take into account the economic life of the assets. Physical depreciation does not measure obsolescence, for the timing or extent of obsolescence cannot be anticipated. This omission is vital because it negates the implied assumption of depreciation and reinvestment. Economic obsolescence breaks this chain and reduces the effective rate of return.

Since economic obsolescence is a very real force in the private sector of the economy, most businessmen insist on a short payout period. Strong evidence exists that most businessmen will try to recover the costs of an investment in 5 to 7 years, requiring an 18- to 20-percent rate of return. This 5- to 7-year period has nothing to do with the physical life of the assets. Also, the economic or physical life is not synonymous with the recorded depreciation period. The depreciation period is dictated by income tax rules and is necessitated primarily by income tax considerations.

A major portion of the discrepancy between the rate which is required for a 5- to 7-year payout (18 to 20 percent) and the 10.4-percent rate in the Principles and Standards must be attributed to obsolescence. While society can absorb the losses of obsolescence, the individual businessman will neither recover his investment costs nor have other returns to offset these losses. The businessman's insistence upon a short payout period is highly justified. There are numerous investment opportunities in the private sector which would be highly profitable, many even more profitable than those investments undertaken, but for which the annual rate of return would be low and the payout period long. Because of the fear of economic obsolescence, however, these investments will seldom be made; there is too great a chance of loss.

In contrast, this problem does not exist in the public sector. Although public investments may fail, there is no uncertainty involved with the investment. There is risk for the public sector, and for the private sector considered as a whole. A number of investments will fail; however, it is not known which will fail. Society can plan for and absorb these expected losses, but an individual businessman cannot withstand such a loss. The private sector has no way to spread the risk among the participating firms so that those investments with a longer payout period, even though profitable, can be made. The public sector, however, can make these investments, to the benefit of the whole society.

Another approach questioned by the proponents of a lower discount rate is the assumption that the average and the marginal rate of return are equal. The validity of the marginal rate is recognized in the Principles and Standards, but proponents of a lower discount rate point out that "the available data provide a basis for estimating only the average rate of return in the private sector." However, the Principles and Standards avoid the non-availability problem by observing that "If the average rate of return is constant (as a function of the level of investment), this is not a problem as the average and marginal rates are equal and, in the long run, this appears to be a good approximation . . ." The conclusion is then reached that "In the short run, the rate of return on private investment displaced by additional Government investment is probably higher than the average rate . . ." This conclusion is wrong in that it assumes that each worker has the same level of productivity as every other worker. The marginal rate of return would be very difficult to calculate, if not impossible, but the assumption that the average and marginal rates are equal is ignoring the problem.

Two other objections regarding the possible source of the average private rate of return are discussed. First, no allowance has been made for negative income (e.g., one which reduces real income to society, but increases the rate of return to the private firm) which may make the high rate of return possible. For example, the high yield may be obtained through ignoring all pollution controls. Alternately, the investment may be in such socially undesirable areas as a fourth gasoline service station on the corner, or slot machine, or pornographic material. To the extent that the private rate of return is enhanced by negative income, that rate of return is invalid for use as a discount rate in the public sector. Second, public investment may also create some negative income. A highway may reduce the value of a particular residential area, or a river development project may destroy certain recreational attributes of the stream. These losses must be accounted for through an adjustment of the project benefits. Thus, the negative incomes associated with private sector investment can only be accounted for through a downward adjustment to the discount rate.

Further, a portion of the private sector return is due to the very presence of public sector investment. The value of a restaurant or motel may rest entirely upon the presence of a public highway; or a farm will yield a profit only because of a Government flood control project; or a firm will owe a major portion of its return to the electricity provided by a Government project. The rate of return in the private sector is highly dependent upon public investment. This dependency cannot be measured, but its presence cannot be overlooked in fixing a discount rate for cost/benefit analysis of public investment.

Another point made by proponents of a lower discount rate is that the rate of return in the private sector does not provide a basis for determining the proper role of public investment. They agree that cost/benefit analysis has been used to determine the level of public investment and to establish priorities among alternative public investment possibilities. Cost/benefit analysis is quite well suited for the latter use. When this analysis is used to establish the level of public investment, however, a great deal of difficulty is encountered, because public production is fundamentally different from private production.

Government output consists of pure social goods and merit goods. Pure social goods are those goods which provide benefits only collectively to the whole society, as in the case of national defense. They can be consumed by one person without reducing the quantity available to others. The market is not only totally inadequate in supplying these goods, but the market mechanism cannot collect from the consumers, since these goods must be consumed equally by all members of society. The only alternative to Government providing these goods would be financing through voluntary contributions. Those who did not contribute, however, could not be prohibited from benefiting from the social goods, and people would usually not voluntarily make the necessary contribution. Thus, if these pure social goods are to be provided, the Government must do it by financing them through the tax system.

Merit goods are those goods which are considered highly desirous or meritorious, such as education, public housing, and sewers. These goods could be provided through the market, but consumers would not likely demand a quantity which would be considered as the optimum by society. Also, these goods, if provided by the market, would certainly be consumed in an uneven pattern. The wealthy would purchase them but the poor often could not. If these goods are to be available in the optimum quantity, they must be provided or heavily subsidized by Government.

Water resource development projects produce both pure social and merit goods. The benefits from flood control for those living in the flood area, for instance, are pure social goods, while such output as irrigation, recreation, and navigation are considered merit goods. An evaluation of the benefits of proposed projects is made through cost/benefit analysis. Comparing the cost/benefit ratio with the return of a private investment, however, is a futile method to determine the relative merits of the two. This is primarily so because a determination of the level of public investment--a determination of the amounts of pure social and merit goods which Government shall produce--must be determined subjectively by the electorate (or their representatives). There is no way to determine objectively the proper level of investment in education, or highways, or water resource development. On the other hand, the level of private investment is determined objectively through the market process. These different methods prevent any meaningful comparison between the two types of investment.

Cost/benefit analysis does have value. It is the best available means for comparing two or more proposed projects in the public sector. To attempt to establish the level of public investment through a comparison of a cost/benefit ratio for the public investment with the rate of return on the private investment, however, is considered erroneous.

The proponents of a lower discount rate also disagree with the statement in the Principles and Standards (page 24167):

> "Less capital intensive projects, scaled mainly to meet near-term needs, will result in relatively more efficient use of Federal and non-Federal investment toward meeting increasing critical water needs, given current budgetary constraints."

This is a bias established in favor of projects returning relatively early benefits for costs incurred. The effect of this bias will be to end long-term projects and planning geared to providing extended benefits to large numbers of people and wide areas of the Nation.

A high discount rate means that the high capital intensive project with long-term, region-building benefits cannot be justified from an economic standpoint. The favored project is the one with the most immediate benefits in relation to the lowest initial cost. However, what may be overlooked is that the project may be underdesigned or require intentionally high operation or maintenance costs.

Thus, no excess capacity exists to accommodate future growth, because the high discount rate would drastically curtail those far-term benefits needed to justify the higher construction cost. The imposition of higher discount rates would mean that projects and plans would be scaled down. However, there is hardly any way to scale down navigation, flood control, or reclamation projects. These are 40- or 50-year projects, and a high discount rate simply means that the 10- or 15-year project is given preference. Many smaller projects are also affected. In fact, higher discount rates will penalize any project which has benefits which increase over a period of years. It will eliminate the good projects as well as the bad, the small projects as well as the large.

The implementation of the Principles and Standards would stimulate quick-results programs focused in urban areas and all but eliminate large-scale water resource programs with 50- and even 100-year lifetimes which, by their very nature, are usually located away from metropolitan centers where land and water must be managed. Although these programs might become overbalanced toward urban interests, the chief fear of planning aimed at "less capital intensive projects scaled mainly to meet near-term needs" is to have the entire Nation some day face a water resource crisis of overwhelming proportions.

(b) Displacing funds in the private sector. --Another argument against a higher discount rate turns around the general premise in the Principles and Standards that use of the opportunity cost concept is necessary to achieve equity from the standpoint of the Federal taxpayer who must finance Federal investments. Therefore, the Federal Government should not displace funds in the private sector unless its return on investments is equal to or larger than that in the private sector. The application of such a concept to only water resource developments and not applying it to most other social, health, and even physical programs of the Government is questioned. Such programs are determined to be necessary for the welfare of people and they are accomplished by the Government because they are too big and unwieldy for the private sector.

(c) Tax revenues foregone. --The proponents for a lower discount rate challenge the proposition in the Principles and Standards that the rate of discount requires an allowance to compensate for the tax revenues which are lost because the resources are not being developed by the private sector. The belief expressed in the Principles and Standards is that a tax loss would occur only if the economy is at full employment. This is not true because the normal situation for many years has been an economy which requires large participation by Government to achieve full employment. If the United States is at less than full employment, the increase in Government investment will result in an increase in tax revenues. The increased spending accompanying the investment will increase income of households and businesses and thereby increase tax liabilities.

Even at full employment, and when Government outbids a business firm for certain resources, there will not necessarily be a tax revenue loss. To the extent that Government investment reduces costs for a portion of the economy, there will be an increase in taxable income which will at least partially offset the decline in the taxable income of the firm which would otherwise have used the resources. Further, the income created in the process of making the investment will be equal, whether the investment is made by the public or the private sectors. It is tenuous to predict a decline in tax revenues resulting from an increase in Government investment.

(d) Other formulas for determining discount rate. --Economists themselves are not in agreement that the opportunity cost concept should be used to determine the discount rates for public investment. Other concepts suggested are the social time preference approach or the Government borrowing cost approach which would lead to discount rates substantially lower than those advocated under the opportunity cost concept.

The Social Rate of Time Preference is defined by proponents as that discount rate which reflects society's willingness to postpone current consumption for consumption by future generations. The use of this concept is inherent in many Federal programs. Thus, in order to encourage rural electrification, Congress determined that Rural Electrification Administration loans shall be at 2 percent interest. No relationships exists between the actual rate of interest paid by the Government on the money it borrows and the loans it makes through the Rural Electrification Administration program. Similarly, the costs allocated to irrigators in reclamation projects are repaid without interest over a period of 40 to 75 years. The costs allocated to the irrigator are determined by his ability to pay rather than the value of the irrigation water, and from power revenues over a period of years. This policy has promoted the development of the West and has greatly increased the contribution of the West to national income.

In further support thereof, these proponents of a lower rate argue that the Government is not in business to make money or compete with private industry. Government should undertake those activities which private industry cannot or will not undertake, and to promote those conditions which are conducive to the economic development of the region or the Nation. The Federal Government--as contrasted to the private sector--is the only entity which has both the responsibility and the ability to construct needed water resource projects on which the benefits to the Nation are delayed beyond the time which could induce the investment of private capital.

The second argument is that the discount rate established should not exceed the official rate set by the Treasury for interest on long-term bonds when the Government borrows money. The formula based on the "coupon rate" of long-term Government securities might result in an interest rate ranging between 3 and 5 percent. Using this formula would be in step with a water resources program that provides long-term benefits. The selection of an interest rate involves social and numerous other policy components of such scale that they alone outweigh economic considerations. Preservation of water and related land resources for the benefit of not only the current generation but for future generations is a must in water resource projects. Government spending should not be equated with spending by the private sector--as advocated by the opportunity cost proponents. An interest-discount rate between 3 and 5 percent will permit a comparison between small, medium, and large-scale projects. This would provide a wider range of alternatives from which to choose. Tradeoffs would be placed in proper focus.

Another proposition advanced by some is the use of a combination of social rate of discount, reflecting the political and public aspects of investment made by Government on behalf of all the people, coupled with an opportunity cost concept. The combination of the social rate of discount with an opportunity cost, which is used as a price of capital, prevents biasing profits toward quick payout, quick-returns projects in the public sector because of the short-sightedness and bias that exists in the private sector. The opportunity cost theory is considered wrong in its basis, and is likely to bias projects in the wrong direction if applied in practice.

On the other hand, different discount rates may be applied to the three objectives in the Principles and Standards: a low, medium, and high. A low rate for National Economic Development might be 2 1/2 percent but for Environmental quality zero, which would indicate that the relative emphasis on Environmental Quality in the future should be higher relative to the present than it is with respect to National Economic Development, because of the expectation that the problems of the environment are going to get more serious as time goes by.

With respect to Regional Development and social well-being, a low rate might be 5 percent rather than 2 1/2 percent in the expectation that other programs are going further, which at some reasonable date in the future are going to make problems less pressing for water resources design because the regional and class disparities of income will have been ameliorated. A set of medium rates for these objectives might be 5 percent for National Economic Development (NED), 2 1/2 percent for Environmental Quality (EQ), 7 1/2 percent for Regional Development (RD) and social well-being (SWB); a high set may be 7 1/2 percent for NED, 5 percent for EQ, and 10 percent for RD and SWB.

(e) Discount rate and economic analysis requirement discriminates against water programs. - The proponents of a lower discount rate also argued that the water resources program is the only Federal activity that is required to show economic justification for authorization and appropriations. All other programs are presented on a need to fulfill national goals or objectives. Most Federal Government programs are not discounted at all. One example is highways. Other programs are discounted at very low rates--2 percent for rural telephone loans, 3 percent for construction of academic facilities, and 2 to 3 percent for foreign development loans by the Agency for International Development. Water development is the only major Federal program which is entirely dependent on the basis of discounted benefits exceeding costs. Health and welfare programs, water pollution control, and other environmental programs are justified entirely on the basis of social goals. Stricter analysis of these other programs is bound to come in the future, and the institution of a 7-percent discount rate for water programs will, in all likelihood, bring demands for the use of a similar discount rate for all Federal programs.

(f) Other related issues. --Some proponents of the low discount rate stated that if the private sector is able to obtain the monetary return it desires for similar investment in a proposed water project, then presumably the private sector would build the project and thus there would be no need for Federal investment. Following this line of reasoning, it would appear that the discount rate provisions in the Principles and Standards mean that, in terms of economic evaluation, there should be no further Federal water development projects.

Others indicated that the higher discount rate will discriminate against water conserved as a result of agricultural developments by favoring projects which provide municipal and industrial water. Also, they argued that the proposed discount rate, if adopted, will put an end to many worthwhile projects currently proposed and these then will only become economically feasible at such times as inadequate water supplies exist, and the resultant drought drives monetary returns from water upward.

Government policies and programs are prompted by long-term considerations and therefore must necessarily be discounted at a less rate than short-term investments in the light of the normal responsibility of Government. Thus, the higher the discount rate, the smaller the scale of potential development, which deprives the Congress of the opportunity to determine the long-term consequences of U. S. conservation management programs.

A high interest rate encourages projects in rapidly developing areas where the benefits are more readily identifiable, as opposed to low income and less developed areas. The development of rural America is a must, in order to reduce migration from rural to urban areas.

Benefit/Cost Ratio--Exclusive Use for Water Development Projects

This issue evolved from opponents to the issue of opportunity cost and discount rate requirement in the Principles and Standards. These opponents (17) generally argued as follows:

If discounting procedures are required by the Federal Government, they should be designed for uniform application to all Federal aid programs. The proposed discounting procedures and use of unduly high interest rates takes a public use program out of the public benefit category and places it in line for development as a high-risk private capital investment.

It appears to be unfair that water resource projects are the only ones required to submit a cost/benefit analysis. Other Government programs, such as highways, defense, and urban renewal, are not required to prove that they are beneficial to the people for it is obvious that they are. Water development is the only Federal program requiring such a rigid economic analysis and review even though benefits are as readily obvious as the other Federal programs not requiring this review.

The new opportunity cost basis for deciding whether Federal investments should be made should not be applied to Federal water resource projects unless it also is to be applied to other Federal investments. If such a policy were to be applied to all Federal investments, many essential Government activities would be discontinued not because they were superfluous but because they are not "profitable" in terms of the marketplace.

Further, the decision on whether a resource project should be built is often an involved question, which should not be made solely on the basis of cost/benefit computations. The cost/benefit ratio can be of assistance if properly understood, but it is based upon assumptions and judgments and is an indicator at best. Other factors of a more qualitative nature also should be seriously weighed.

The opportunity cost concept, if it results in any projects at all, is likely to channel Federal investments into developed and congested areas, where rates of return can be computed at a high level, rather than into less developed areas where, because of less congestion, the computed return is less. Under this policy it seems likely that most new resource projects will be eliminated and the rural-urban imbalance will worsen and more problems will be created than are solved.

Some opponents challenged the entire concept of applying cost/benefit ratio analyses to water and land resource projects when they are not applied to any other category of Government spending or investment. The executive and legislative branches of Government were urged to seriously consider the elimination of the discount rate cost/benefit ratio concept in water resource development. Such an action would not only be more democratic in application, but would eliminate the need for many layers of bureaucratic planning and operation, with consequent savings to taxpayers and release of funds for more productive purposes.

Feasible Alternatives--More Consideration in Project Planning

Public comments on this issue were noted 1, 185 times. Two specific alternative recommendations--flood-plain zoning and recycling water--were mentioned 34 and 1, 127 times, respectively.

The proposed Principles and Standards require the formulation of alternatives when considering plans for the use of the Nation's water and land resources. In general, the plans will be directed toward improving the quality of life by meeting current and projected needs and problems which have been identified by the desires of the people. Plans should be formulated to reflect national, regional, State, and local needs and problems.

The proposed Principles and Standards define the planning process as one which involves an evaluation of alternative means, including both structural and nonstructural measures, to achieve desired objectives. Alternative plans will be prepared based upon identified needs and problems and evaluated in the context of their contribution to each of the objectives.

Comments on feasible alternative plans.--The proposed Principles and Standards do not specify the number of alternative plans that must be developed. Rather, they provide the number of alternative plans to be developed for each planning effort which will depend upon complementarities or conflicts among specified components of the objectives, resource capabilities, technical possibilities, and the extent to which the design of additional alternative plans can be expected to contribute significantly to the choice of a recommended plan.

Appropriate methods and techniques for estimating beneficial and adverse effects will be used to provide reliable estimates of the consequences and feasibility of each alternative plan.

The responses to the provisions in the Principles and Standards on alternatives indicated that the Water Resources Council should request and strongly recommend that specific stragegies, e.g., recycling, flood-plain zoning, and flood insurance be considered in developing alternative water resource plans.

For example, over 1,000 petitioners specifically requested consideration of water recycling. The reasons cited for advancing this concept were that conservation of United States natural resources, whether renewable or nonrenewable, is of utmost importance. Recycling and wise resource use should be practiced wherever possible to preserve our natural resources as long as possible. As movement toward reuse, reclamation, and recycling is so obviously becoming a necessity of the future, recycling and reclamation of resources should be included as an alternative which must be considered in computing benefits and costs.

In the area of water supply, the question of waste water treatment arises, and language should be inserted in the new Principles and Standards to encourage reuse of water as a desirable alternative to impoundment of streams. It is almost inevitable that considerable progress will have been made in the technology of water recycling (especially so if flushing to achieve water quality is prohibited), reducing or eliminating the need for more impoundment of free-flowing rivers. Therefore, it seems prudent to discourage impoundment as a means of water supply and to encourage further development of alternative water supply methods.

Flood-plain preservation and management is essential because the flood plains provide a useful function in nature that should be maintained. Flood plains need to be kept clear of buildings, dumps, and other construction to absorb seasonal high water and recharge our underground water supplies. The proposed Principles and Standards assume that human occupancy is the best and highest use of the flood plain, whereas exclusion from occupancy may be less costly and most beneficial. The hypothesis which is inferred that the development of structures and human occupation as being highest and best use of a flood plain is an anachronistic concept and is highly objectionable. Here, especially, there is no need to compound previous mistakes. Rather, it would be more useful for the Federal Government, as one agency is doing, to sponsor recreation and related activities in a flood plain rather than a plan which would cause further upstream damming to protect developed flood-plain areas.

Alternatives to ditches and dams--such as flood zoning, Federal flood insurance, or application of laws like the Federal Water Bank Act of 1970--are rarely, if ever, put before landowners for consideration. One agency has an enlightened plan which uses wetlands as a partial alternative to structural measures for flood control on a river. This sophisticated proposal utilizes the complex natural biological and hydrological systems of the river for floodwater storage. The same agency in another geographical area has never mentioned that wetlands, properly cared for, might serve well as natural floodwater storage areas.

All that is ever offered is structural answers to problems. Build a dam or a ditch and your troubles will be over. Functional ecosystems are being damaged through physical development justified as flood control and navigation improvements. While one agency is busy creating new water sources, another is busy draining the land as fast as it can. Straightening and ditching the stream channels speeds the runoff and decreases the groundwater recharge. More ecologically sensitive solutions and greater authority and use of nonstructural alternatives are needed to benefit functional ecosystems.

Guidelines for development in all flood plains and flood-plain insurance should be required for all Federal and Federally assisted water and land-development projects. Local governments could advance these sound approaches through appropriate partnership agreements with State and Federal governments. The Federal Government should withhold monies for those projects where local authorities have allowed the flood plains to be violated.

Such a practice is in effect in one State where the State will withhold final support for Federal flood control projects because the local communities that would be benefited do not have adequate flood-plain regulations. It would seem that the Water Resources Council should follow this example and insist that beneficiaries of Federal flood control projects develop adequate flood-plain zoning.

Increased attention to such factors would result in a more livable environment. In addition, it could significantly reduce government expenditure on local services resulting from inefficient patterns of sprawl.

Personnel within each government agency should be required to consider the application of all alternatives when formulating project plans. All specific alternatives, such as dams, desalination plants, scenic rivers, wilderness, canals, flood-plain maintenance, groundwater recharge, etc., would be offered for public choice. To do less, is to perpetuate biases in the planning system.

The present provisions for plan selection put an unrealistic burden of objectivity on the planning organization to choose a recommended plan and to then advance alternatives to it. Most water projects are planned by agencies with primary or exclusive responsibility for construction activities. Federal Government funds should not be tied to specific solutions. Nonstructural or management solutions to natural resource problems receive little serious consideration because funds to support such approaches are almost nonexistent. Excessive public expenditure and unnecessary environmental manipulation are the result of reliance on structural solutions.

It is disturbing that the pending criteria contain so many references which could easily be interpreted as being prejudicial to navigation. If a railroad is the given non-Federal alternative plan, can it really take the place of a waterway? The two modes are more complementary than competitive, as Herbert Hoover observed years ago. As a general rule, waterways carry low-value, bulk commodities and railroads haul high-value, manufactured goods. To consider a railroad as an alternative to a waterway seems to be a rather illogical and extremely shortsighted view.

For many decades, the development of rivers and waterways has been used by the Federal Government to achieve broad national policy objectives. Guidelines used in evaluating water and related land resources should satisfy these objectives and also reflect the American people's desires and aspirations. The water resources planner must be given the latitude to lay out the real alternatives for decisionmakers. This should be the function of evaluation standards: To provide a true-to-life picture of the real benefits and real costs of various proposals and not to become a tool to obstruct or restrict programs on arbitrary, theoretical grounds.

Retroactive Application of the Principles and Standards

Item I E, page 24150 of the Federal Register, contains a sentence which states that all

> "Plans, programs, or projects which have been authorized by the Congress and on which actual construction or other similar activity has not commenced within 5 years after authorization will be reviewed in accordance with these principles and standards."

Comments concerning the retroactive application of the Principles and Standards generally fall into the following categories:

1. Apply to all projects immediately (1,360 comments)
2. Leave as proposed (5 comments)
3. Extend review period (269 comments)
4. Eliminate the requirements (47 comments)

Immediate application of the Principles and Standards to all projects.--A number of responses were received by the Water Resources Council endorsing the use of the review clause for planned and future projects. However, most of the responses indicated that the use of the review clause should be extended across the board to all projects past and present, particularly all prospective actions on previously authorized or submitted projects.

One response tried to focus the issue in the national perspective. Projects are not ends in themselves, but means for achieving our national goals. These Principles and Standards reflect the fact that our goals have changed. Our public works program must now dovetail with these new goals; otherwise, the program ceases to serve its national purpose. This, it seems, is elementary. Delay of project development is no excuse for thwarting the National Environmental Policy Act. Indeed, projects which do not conform with the new goals do not serve the national interest.

It was strongly urged that all projects not yet completed be made to comply with the new Principles and Standards or be abandoned. The Principles and Standards must be made retroactive in order to be certain that taxpayers are not being forced to finance projects which are economically unjustified and ecologically unsound. If a project is not in the best interest of the public, it should not be completed, regardless of the date on which it was submitted to Congress. There is concern that the inclusion of benefits for water supply and for storage and flow regulation for water quality in the Principles and Standards may encourage the construction of environmentally destructive reservoirs in cases where they could be used to postpone the ecologically sound solutions of cleaning up pollution at its source so that the water is clean enough to be reused. This is similar to the flood problem, where dam construction tends to discourage the adoption of adequate flood-plain management regulations, so the taxpayer in the end must pay twice as much--once for the dam and once for the permanent solution. By looking ahead to find the best long-range solution now, the rivers can be preserved and still have clean water without heavy flood losses.

Another response indicated that if our concern is for total Environmental Quality and a just allocation of Federal funds, authorized projects 5 years or older should come under the Principles and Standards. The goals and procedures established in the proposed Principles and Standards will only be met if projects based on a 2 5/8 discount rate and containing only a minimal analysis of the total impact on the environment are reviewed as well.

Review of all projects authorized prior to the adoption of the new Principles and Standards is essential. In the elaboration of new water resource plans, organizational tunnel vision must be anticipated, especially on the part of agencies with a traditional preference for a particular type of developmental approach. Every effort should be made to broaden their considerations to reflect the full range of available alternatives and social preferences.

The Principles and Standards should be applied to those projects which have already been authorized but on which construction has not yet begun. There is simply no logical reason why projects which are not defensible under the Principles and Standards should be permitted to proceed simply because they were authorized before the Principles and Standards went into effect. If a project is not advisable under the Principles and Standards, it should not be allowed to proceed.

Not only should the review process be implemented immediately but specific criteria governing future review of the Principles and Standards (frequency of review, participants) should be included in the present proposal. Unless specific criteria are included governing this matter, it is doubtful whether any formalized review process will ever be followed. When considering the complexity of the proposed Principles and Standards, the need for a thorough review after they have been applied over some period of time is readily apparent.

A comment from those citizens who feel strongly about the reviewing process but inadequate in influencing the outcomes indicated that the only way one gets a new look at a project is to go to court and everyone cannot go to court. The Principles and Standards should provide for meaningful review of old projects, and the only way that will happen is to have the Principles and Standards applicable to them.

In the Principles and Standards it was recommended that the Principles and Standards be made applicable to all planning except projects authorized or submitted for authorization to the 92d Congress prior to the approval date. One respondent indicated that the review clause allowed for a loophole the size of the Grand Canyon for evasion of the rules. If the Principles and Standards do truly reflect the thinking and study of those who have been involved in the preparation for the past 3 years, then the effective date should be immediate.

There will be a flood of water projects submitted or authorized in this year explicitly and with the foreknowledge that such cannot meet these requirements. The implementation of these antiquated projects will be carried on over the next 10 years and the planners in all levels of government will become schizophrenic in handling pre- and post-approved projects. It is rank discrimination in application of supposedly uniform law. Our concern is for uniform application of the Principles and Standards without evasion on legalistic technicalities. One response pointed out that it does take a long time to bring a project to fruition, and it is unfortunate that long and expensive studies based on early premises or a certain climate of belief must sometimes be scrapped because the economic and social climate has changed. But one must remain flexible. Even if a study is completed and a project appears to be justified on the basis of a certain discount rate in effect at the time of study and a certain climate of opinion on the part of the people as to the values of environmental impact, there should be enough flexibility to scrap the whole thing if the present discount rate is more realistic and the people now realize that a free-flowing river is worth more than a backyard swimming pool. To be inflexible in the face of changing conditions is the height of waste.

Without the review clause, and without the extension to all projects--past, present, and future--we lose some of this flexibility, and we lose sight of human values.

Comments calling for extension of the grace period or no retroactive application.--The Investigations Subcommittee of the House Public Works Committee recently conducted hearings into the increasing red tape that is grinding Federal projects of all kinds to a virtual standstill. The Subcommittee found that, in the 1930's, the average time lag between a Congressional survey resolution and the beginning of construction on a typical flood control project was about 4 years. The Subcommittee further found that today the average time lag has increased to over 15 years!

It is obvious that the so-called "Schedule for Applying Standards" is no schedule at all but instead the kiss of death for over one-half of the authorized but unconstructed water projects in America. For these reasons the Water Resources Council either should delete the grandfather clause or extend the 5-year period, which is totally unrealistic in view of the red tape, to a minimum of 12 years.

The grandfather clause will have two severe impacts. First, most authorized but unconstructed projects will have to be abandoned because their favorable benefit/cost ratios will be destroyed by the harsh and theoretical 7-percent discount rate. Second, projects costing over $10 million to construct will wind up on a never-ending treadmill of restudy, restudy, and restudy that assures job opportunities for a few planners but very few job opportunities for the millions of Americans who are benefited by the economic stimulus of water resource development.

Local interests should not be penalized or threatened with project deletion as a result of procedures over which they have no control. Factors such as the Federal Uniform Relocation and Land Acquisition Policies Act of 1970, environmental impact statements, design planning, numerous reviews, contractual procedures, and delays in new start funding because of budget considerations make it unrealistic to assume that projects can be started in 5 years. For these reasons the grandfather clause is extremely objectionable and should be deleted.

Many projects are undergoing delays associated with efforts to meet the requirements of the National Environmental Policy Act. Review of authorized projects using the Principles and Standards should not be required for 10 years from authorization, or 5 years from adoption of the Principles and Standards, whichever is longer.

Concerning projects authorized but not yet under construction, non-Federal interests have committed themselves to certain costs. The Federal Government accepted these assurances. This is viewed as a moral commitment on which local interests, proceeding in good faith, have incurred expenditures. Article I, Section 10, of the Constitution of the United States, forbids the Congress to enact any "ex post facto Law, or Law impairing the Obligation of Contracts . . ." The executive branch should be similarly constrained.

The proposed change calling for reevaluation of projects after 5 years amounts to repudiation and bad faith on the part of the Federal Government. Some governing bodies of counties, cities, and special purpose districts are acting in reliance of the affirmative actions of the Federal Government in moving toward construction on one project. In this regard, these governmental units had invested almost $400,000,000 of purely local funds into various aspects and in reliance upon the statutes of assurance of the Federal Government.

The ridiculous time lag was emphasized when a particular project was accorded top priority by a State in 1938 and finally authorized by Congress in 1964. No funds, even though appropriated, have been available for the last 2 years.

During the past decade, 10 multipurpose water resource and flood control projects have been authorized by the Congress for construction within a particular State on which construction has not yet started. Cumulatively, over 200 years of planning effort and several million dollars have been applied to achieve the present status of the projects. The Principles and Standards now propose that the hopes, dreams, and aspirations of thousands of citizens be callously crushed by administrative fiat. For these reasons the grandfather clause provisions should be eliminated.

Some States have set up a revolving fund to meet the monetary costs of assurance required by the Federal Government. These funds cannot be held over too long a period of time. Section I E in the Principles and Standards is difficult to really determine whether a project that has been on the books for 10 or 15 years is in or out.

Since it takes 5 years to design a project, the 5-year time limit is certainly unrealistic. A more reasonable period would be 10 years, after which time the decision for or against reevaluation of a project should be made by Congress. It must be remembered, 99 percent of the present uncompleted projects were the subject of local public hearings, individual approvals by the Governors concerned, public hearings on Capitol Hill, and debated in the House and Senate. Does this not prove the projects are wanted and needed by the people involved?

The proposal to reevaluate programs under the Principles and Standards will terminate many of our welfare programs along with resource development.

The section concerning reevaluation after 5 years needs to be restated. A recommendation was made that the 5-year period between authorization and construction should not apply to currently authorized projects.

Use of OBERS Projections in Project Planning

One of the basic planning parameters is the projected demographic and economic patterns for the planning setting. The proposed Principles and Standards recognize this by requiring that plan formulation and evaluation be based on consistent national and regional projections. This is stated in section IV A, page 24146, of the Principles, as follows:

> "Plan formulation and evaluation will be based on national and regional projections of employment, output, and population and the amount of goods and services that are likely to be required. Actual or projected needs for water and land resources will be related to these projections."

The projections to be used are described in section IV A, page 24165, of the Principles and Standards. These projections were prepared using the Bureau of the Census level C population figures and interpreted by the Office of Business Economics (OBE) and the Economic Research Service (ERS) to give data on expected employment and required goods and services. The term "OBERS projections" has been applied to this effort. Using these data, the projected population for the United States is 400,053,000 by the year 2020. The Water Resources Council indicates that they will be periodically reviewed and updated.

Several sections give further indications of how to use these projections. For instance, section V B 5, page 24170:

> "The components of the multiobjectives will be drawn for both current and future conditions. Projections should be made . . . to indicate how changes . . . are likely to impact the components over time.
>
> "Economic and demographic projections should be consistent with national baseline projections (OBERS projections) which reflect differential regional growth patterns and probable future population and economic conditions of all regions of the Nation. Additional projections . . . which are required for identification of components of the regional development objective should also be made. Such projections, however, should be on a comparable basis with the OBERS projections to enable valid comparisons . . ."

and again in section V D, page 24171:

> "In those planning situations where there does not exist a strong linkage between water and land development and major shifts in economic and demographic trends, the OBERS baseline projections will generally be used . . . . Where the linkage is sufficiently strong . . . this relation should be reflected in alternative assumptions."

The projections are to be viewed as a "baseline" or reference point to the planner and additional projections will be made to aid in formulating plans for the alternative objectives.

Comments (13) on this aspect of the proposed Principles and Standards were concerned with the appropriateness of using projections based on past trends, feeling that planning should be toward desired, not projected, levels. Further, that these projects should be in harmony with the carrying capacity of the land, water, and air resources of the river basin. The Water Resources Council should substitute existing OBERS projections with a sustained yield concept that measures the carrying capacity of a planning unit at various levels of population, economic growth, and material amenities. This would mean that planning should be designed to discourage growth in certain river basins which are now close to being overloaded. If it is legitimate to plan to stimulate growth, then it should be legitimate to plan to curtail growth in other areas.

The population projections are inflated. Using them to justify more projects is dangerous, because it is possible to justify large numbers of environmentally disruptive projects in order to meet so-called projected new demands for water supply, electricity, recreation, etc. The Water Resources Council should use four alternate projection levels that have been developed by the Bureau of the Census. By the year 2000, these official figures project four alternative populations . . . 321 million, . . . 307 million (used in OBERS), 285 million, and 267 million. Any one of these is possible.

The relationship of the OBERS projection to the required "no plan" condition of section III A 3, page 24153, of the Principles and Standards was questioned. Also, it was stated that OBERS cannot be used in the analysis of small projects whose total increased output is so small that it would have no effect on the national market price.

San Francisco Public Hearing, March 13, 1972

4. ISSUES RELATED TO PROGRAM COVERAGE AND COORDINATION

Coverage of Agency Projects in the Principles and Standards

A total of 76 comments concerned project coverage.

The proposed Principles and Standards stipulate, in part (page 24149), as follows:

> "These standards apply to the planning and evaluation of the effects of the following water and land programs, projects, and activities carried out directly by the Federal Government and by state or other entities with Federal financial or technical assistance:
>
> (a) Corps of Engineers civil functions;
>
> (b) Bureau of Reclamation projects;
>
> (c) Federally constructed watershed and water and land programs;
>
> (d) National parks and recreation areas;
>
> (e) Wild, scenic, and recreational rivers;
>
> (f) Wetland and estuary projects and coastal zones;
>
> (g) Federal waterfowl refuges;
>
> (h) Tennessee Valley Authority;
>
> (i) Federal assistance to state and local government sponsored watershed and water and land resource programs (Watershed Protection and Flood Prevention Projects and Resource Conservation and Development Projects).

The Water Resources Council will, as appropriate, with the concurrence of the Office of Management and Budget, amend these standards to add to or delete from the list of programs to be covered."

The comments received requested clarification or proposed either exemption or inclusion of certain programs and projects in the Principles and Standards.

It is not necessary for the Water Resources Council to review all watershed projects subject to Congressional approval. These projects already require interagency review and additional study by the Water Resources Council would appear to be a duplication of effort.

PL-566 projects are local projects approved by the Governor and, in many cases, the United States Congress. The Water Resources Council appears to be reversing the situation and PL-566 projects would end up as Federal projects. The proposed Principles and Standards should be amended to exclude small projects like those carried out with PL-566 assistance. Approval of projects should remain with the heads of agencies and the United States Congress. The Water Resources Council should be given an opportunity to review projects along with other interested Federal departments.

The inclusion of planning activities for national park and recreation areas appears to be outside the statutory authority (PL 89-80) of the Water Resources Council. Under present law, the Principles and Standards should apply only to the planning of water resources projects and those related land resources which are intimately involved in this planning process. National parks and recreation areas should be dropped from the activities covered. Practical experience with the new planning procedures may indicate the desirability of extending them to cover a much broader range of Federal land planning activities at some future date.

Application of the Principles and Standards to national parks and wildlife refuges is a doubtful extension of coverage. The parks and refuges are examples of activities where general public goals are being pursued through the use of water and land resources. Water planning is not undertaken to create national recreation areas and wildlife areas. Such a process could be dangerous; it is hard to conceive of a meaningful planning analysis of a potential national park under the National Economic Development account. Many existing park facilities already are overcrowded, yet such overcrowding would make a water development project designed to serve a park appear more feasible in that account because the visitor numbers -- and therefore the economic benefits -- would be greater. Such use could, however, conflict with the purposes for which national parks are established.

Water management is not an end in itself. If the public chooses to expand and improve our recreation opportunities, then there must be a national recreation plan which will guide a national park and recreation system, including wild and scenic rivers and wildlife refuges, which are all in part dependent upon the use of water resources. However, the national goal will never be fulfilled through Federal water management alone. Inclusion of wild rivers, estuaries, and waterfowl refuges in the Principles and Standards coverage could lead to economic development of such areas.

Others said that it is not clear which types of projects properly fall under the authority of the Principles and Standards, but they thought the Principles and Standards should have broad program coverage. Among these are activities that relate to development of nuclear power plants associated with bodies of water, open space grants, and waste treatment grants. Waste treatment plants should be subject to the proposed Principles and Standards to insure consideration of alternative locations for sewer lines planned through valuable natural areas. Failure of the Principles and Standards to cover projects of this type creates a loophole of serious magnitude which should be closed before the Principles and Standards are approved.

Specific agencies should be more involved with city sewage (extraction of minerals and gas); and with promoting use of sewage sludge fertilizer and farm manure in such a way that it does not pollute the Nation's waters.

A subissue evolved concerning the scope of legislative authority for projects. For example, it was stated that some agencies now have general authority to plan water projects for certain specified purposes. But do they have authority to pursue activities which are either implicit to or result from the multiple objective planning procedures and multiple account cost/benefit analyses set forth in the Principles and Standards? Do the proposed Principles and Standards require, either explicitly or implicitly, that Federal agencies engage in activities for which they first should properly seek new Congressional authority?

The proposed Principles and Standards look to 14 individual Federal laws enacted within the last ten years as sources for ". . .new or more definitive directions to federal participation in planning for water and land resources . . . " (page 24150).

Separate Planning from Design and Construction Functions--Agency-Wise

Comments were received from 38 interested citizens or organizations requesting that the planning and design-construction functions be separated agency-wise in the Federal Government.

The single most important obstacle to sound planning, and the issue which has caused the most widespread controversy over water resource development in recent years, is the inherent direct conflict of interest which exists within agencies responsible for both planning and construction of projects. This dual responsibility, resting with agencies which depend on construction for their existence, leads to poor planning, duplication of planning efforts and unhealthy competition between agencies for project funding. National priorities and sound planning take a back seat under these circumstances.

President Nixon's proposal to combine planning functions of the water development agencies in a Department of Natural Resources would help solve the problem. In the absence of legislative action to create the Department of Natural Resources, the Water Resources Council should address itself to this important problem and recommend steps for separating the planning function from the design and construction functions. The Principles and Standards should delineate and limit the activities of sponsoring public and private agencies to fact and data gathering. Detailed analyses should be done by the Water Resources Council or another agency not involved in the construction of projects.

Even if the connection between the planners' recommendations for projects and their job security is disregarded, it should be recognized that many of these people entered the water resources field in the first place because of their feeling that any project which can be economically justified is in the public interest and should therefore be built. These people tend to regard falling water, for example, as being of no value unless it is producing electricity; yet many members of the public are beginning to realize that freely flowing water has a uniqueness and a value which is very real even though a price tag cannot be placed on it. Huge recreational benefits are attributed to projects without regard to the value of the recreation eliminated by the projects, which is sometimes greater than the likely recreational benefits.

The pro-construction bias should be reduced by reducing the planning responsibilities of construction oriented agencies. The ideal situation would be the creation of an independent planning agency staffed with personnel from the existing agencies involved in water resource planning.

Agency Coordination: Local, State, Regional, Federal

Fifteen citizens or organizations were concerned over agency coordination problems. Section A of the Purpose and Scope of the Principles and Standards, page 24149, states:

> "Although these standards are not binding upon State and local bodies participating in water and land resources planning, it is intended that the standards be broad and flexible enough to accommodate the goals and objectives of such entities. The standards apply to Federal participation in Federal-State cooperative planning and should also provide a useful guide to State and local planning."

Section B, subsection 1, page 24149, states:

> "These standards apply to Federal participation in comprehensive framework studies and assessments and regional or river basin planning. . .", and in subsection 2, ". . . standards apply to the planning and evaluation of the effects of . . . programs, projects, and activities carried out directly by the Federal Government and by the State or other entities with Federal financial or technical assistance. . ."

The respondents felt that the proposed Principles and Standards do in fact become binding on State and local entities, indirectly if not directly, considering the extensive degree of Federal participation in other programs. Where there is deeply entwined responsibility at both Federal and State levels, it is impossible to administer such Principles and Standards without making them binding on all parties. Since plans of river basin commissions (Federal-State organizations) are required to be comprehensive, coordinated, and joint, it is not possible nor desirable for their members to follow different planning procedures in a common effort. Such an imposition of the Principles and Standards by the Federal participants gives as much concern as if an individual State of an interstate commission was to attempt to put into effect its own principles and standards.

The conflicts are identified in two major areas--plan formulation and financing. It was noted that many local and State entities have different objectives than those stated in the proposed Principles and Standards. For example, many groups stated that social well-being should be the overriding objective. Some States have legislative directives that foster a policy of optimum development of water resources and of limited storage sites for long-range benefits, while the proposed Principles and Standards seem to be focusing on short-range planning only.

A more specific conflict of objectives is the lack of a Regional Development viewpoint in the proposed Principles and Standards. It would be irresponsible for State or local members of planning teams to participate in any planning without a regional perspective (see the issue on retaining regional objective in planning). The OBERS projections to be used by the Water Resources Council in planning may be binding and reflect different goals (see the issue on OBERS projections). The essence of the controversy on the use of the "opportunity cost concept" for Federal monies and cost-sharing proposals in the Principles and Standards is the implied State-Federal-local balance in water development (see the issues on the discount rate and cost sharing).

It appears that the Federal role in water development, at least in plan formulation, will be greatly expanded with the adoption of the proposed Principles and Standards. This is in violation of Section 3 of Public Law 89-80, the 1965 Water Resources Planning Act, which states, "Nothing in this Act shall be construed . . . to expand or diminish either Federal or State jurisdiction, responsibility, or rights in the field of water resources planning, development, or control . . ."

With these factors in mind, it was recommended that the proposed Principles and Standards be modified to provide flexibility for compromise in prescribing the criteria employed in joint Federal-State-local undertakings. The proper roles of Federal and State Governments will vary from State to State depending on the degree of Federal interest.

Capacity for rapid and responsive amendment of planning documents is required in certain situations such as river basin plans that deal with a great number of development factors. The proposed Principles and Standards do not provide this flexibility and their literal application would cripple such planning organizations.

Some felt that the State should be the primary entity vested with responsibility for planning the management and development of its water resources. Others pointed out that river basin commissions which are made up of representatives of Federal and State agencies, would be the appropriate body for such responsibility.

Resource planning and management agencies at Federal, State, and local levels must be assured a direct and full part in reviewing development proposals, evaluating selected projects, formulating alternative development plans, selecting physical alterations, and maintaining ecological soundness as human activities expand and become more intensive. Recognition of the need for this full participation by professionals and citizens is absolutely essential to help insure that the Principles and Standards are applied in the soundest manner practicable.

Public Participation

The proposed Principles and Standards clearly indicate that Governmental agencies and public and private interests are to have responsible roles in the planning process. The pertinent provision is (page 24145):

> "These Principles are established for planning the use of the water and related land . . . resources of the United

> States to achieve objectives, determined cooperatively, through the coordinated actions of the Federal, State, and local governments; private enterprise and organizations; and individuals."

However, there is no clear indication of how these intentions are to be carried out.

A total of 1,311 citizens and organizations thought more citizen participation was needed in all levels of water resources planning. This was the fifth most frequent issue mentioned.

The comments generally fell into seven broad areas: Require agencies to solicit public opinion, State should assure public involvement, Definition of public, Pay attention to the public, Public wants to learn as well as express opinion, Local people want strong voice, and Guideline considerations.

Require agencies to solicit public opinion.--Every citizen has a right to a voice in planning water projects. This idea is not new nor is it revolutionary. It dates back to ancient Roman law and English common law. It is time to revive it. The ancient legal maxim that one may use one's own property only in such manner as not to injure that of another has, in this country, been applied only to disputes between individual owners. It should be applied in a larger sense, to factories, mines, and the alteration of waterways.

The purpose of the Principles and Standards is to see that society's long-term gain is protected and to safeguard against projects designed to benefit only a few. To achieve this goal, an increased public role in planning water resources projects will tend to protect against special interests exerting undue influence. Provisions should be made for real citizen input during the early stages of project planning. The use of local environmental groups before a project reaches advanced planning stages will insure that all sides of the matter are considered. It will also tend to insure the necessary public support for such projects without stoppages and delays once plans are made.

Public participation goals are to identify social objectives, to define relevant project effects in order to find tradeoffs, and to define the public interest for plan selection. The public should be involved in each of these steps. Project choice is not possible without some choice of relative social values which cannot be determined to reflect the public interest without public participation. More agency guidelines are needed on public participation; otherwise, no change from past decision making trends will occur in spite of agencies having to specify tradeoffs for multiobjectives. Agencies should be explicitly required to solicit public opinion early in the planning stages.

Since the Principles and Standards fail to specify how public participation should proceed, a formalized method should be added. The Principles and Standards are a fine example of how technical planning expertise diminishes the substance of planning while enlarging the scope of technical planning operations. Three points should be made in regard to the public participation:

1. Public participation should be made an integral part of the entire planning process, including public review of planning proposals, during and after plan formulation, and before any contracts are let.

2. Direct participation by the interested public should be made possible as well as consultation with local officials. Local officials when elected by their constituencies are not necessarily charged with making decisions for future generations. In addition to consulting local citizens, there must be opportunity for direct public participation.

3. The required elements for public participation should include public hearings at each stage of the planning process, a continuing public information program, widespread distribution and availability of study reports, environmental impact statements, interpretative materials, and inclusion of nonelected representatives of the public interest on advisory committees and commissions.

Without a clear definition of the public role in planning, the various agencies will have different concepts of public involvement. There is always the fear by the agencies that too much public involvement will delay the planning process, and yet it is also recognized that a plan not socially or politically acceptable is subject to failure.

It is essential that public participation, especially by conservation interest groups, begin very early in the planning process and apply to every phase of planning particularly with regard to framework studies and assessments. Public participation is also important to the establishment of priorities and the formulation of national programs. The Principles and Standards do not provide sufficiently for public participation at the national level. The neglect of this aspect of the planning process by the proposed Principles and Standards is not in keeping with the critical need for communication between the public and the planning agencies. Public participation in plan formulation should be made mandatory from the beginning in the Principles and Standards. Therefore, it is suggested that the sentence on page 24170, column 2, under 4. Participation, beginning "Direct input from the public. . ." be changed to "Direct input from the public at the national, regional, State, and local level is paramount at all stages of the planning process in view of multi-objectives and must be pursued vigorously through all available means such as announcements in news media, public hearings, public meetings, information programs, citizens committees, etc. Meaningful communication between the public and the planning agency will require a continuing program for the full disclosure of information as well as extensive opportunities for feedback. Further, the public reaction to the beneficial and adverse effects of each alternative plan must be displayed in the system of accounts whenever requested by interested members of the public." Only with this change will the Principles and Standards for planning make absolutely sure that the public and their chosen environmental leaders will be able to study and review each alternative and thus be able to express informed views. Past experience has shown that direct involvement of the public in decision-making from the beginning will often pave the way for ready public acceptance of this final decision.

When shown the deleterious consequences -- destruction of natural waterways, water and air pollution, and so on -- people would no longer be willing to pay for some goods and services they are now willing to pay for. Why not responsibly reeducate the public toward awareness of the environmental impact of Economic Development? Why not encourage in the public that "sensitivity analysis" which the Principles and Standards prescribe to the planners?

Public hearings are the only way that you can get a good idea of the needs of the general citizen, who hasn't the time or money to launch a full-scale effort to convince you of the validity of his wishes. This should be an undeniable section of the Principles and Standards, because if a citizen is not going to have a chance to protect the area he is connected with, no one else will make an effort to see that all sides are considered.

Planning will take considerably longer by including all groups at the very beginning, but their inclusion will aid in the most objective formulation of a project and will certainly save time during the review process. Project acceptance can be facilitated tremendously by discussing the suggestions of various interest groups and working out compromises during the planning stage. A more definite commitment to citizen participation in planning is recommended for the Principles and Standards. The Principles and Standards should also require that local and national environmental conservation groups be included in the planning process. To date, groups with monetary rather than environmental conservation interests (i.e., Chambers of Commerce, special interest business men, elected and appointed politicians, and Federal agencies) have been allowed to do most of the planning. Intangible values have been overlooked in past planning efforts because of a lack of citizen participation in the planning process. Fewer mistakes will be made if full citizen participation is developed during the initial planning process for any project. If everything is out in the open, the agencies themselves will have a measure of protection against unfair criticism.

It is extremely difficult to achieve communication between large resource planning agencies and the public. For example, one river basin commission is in the process of publishing a framework study of a region, and has invited a public review. It is so voluminous, however, that the public library of the second largest city in the State cannot afford the $80 necessary to purchase it.

The public must be given the right to analyze and comment on projects involving its water and land resources. Too many political deals and too many subsidies to a select few who became richer have been made, all because our waterways have been taken for granted while our eyesight was clouded by dollar signs.

The Principles and Standards should require agencies to solicit public opinion at all stages of planning. If public opinion is solicited only after planning has reached the advanced stage, time, effort, and money is wasted. The agency has to defend its entrenched position--a position that involved many tax dollars--with additional tax dollars. The citizen then has to expend much time, effort, and money to have his views considered. If views could be aired in the early planning stages, money and effort could be saved. There is an increasing awareness, and the citizens of the United States are demanding a voice in Federal projects which affect the quality of their living. No longer should decisions on projects involving our waterways be made hastily. The citizenry should have a ruling voice in projects which use their tax monies. The proposed Principles and Standards should state this very strongly and unambiguously.

State should assure public involvement.--Each State should be expected to assume the responsibility for assuring the involvement of public and private interests in the development of objectives and the preparation of plans.

The democratic process is known to have limitations for expedience. However, this same process has shown greater strength in an organization and a community when its members are permitted to participate in a cooperative manner. When this participation is denied or no cooperative mechanisms are developed, the program falters with delayed results, or the program fails completely.

Each State has the primary responsibility to protect the public health, safety, and welfare of its people. Local units of government have been granted this responsibility by the State for their corporate areas in order that they may manage local affairs. Geometric population increases, expanding urbanized centers and increasing regional demands on the natural resources affect the ability of local communities to function independently of other communities.

The concept of "home rule" in most States has served to strengthen the effectiveness of the democratic process. The communities in these States have developed a jealous attitude toward maintaining their public responsibilities and will counter any effort that would affect their democratic process.

The key to strengthening the role of the public in planning is to develop guidelines for public involvement. If a State has adopted enabling legislation to create governmental entities on a river basin basis, then that entity should develop the mechanism for public involvement. One State has adopted an act which permits the creation of watershed councils as governmental entities to serve in a planning and advisory capacity for the local units of government in the basin. When such councils are formed, the public involvement programs should be conducted through the services of the regional organization.

Consideration should be given to the role of Federal agencies when regional planning programs are originated at the State and/or regional level. The proposed Principles and Standards seem to imply that public involvement through State and local participation are significant elements of planning to legitimize the planning process and the final plan. If this is true, the credibility of a plan for a given region is even more valid when it is a direct product of the people of the region. If the premise is valid, then the Principles and Standards could strengthen the regional planning concept by declaring how the Federal Government will assist State and regional governmental entities in the development of a regional plan.

Definition of public. --A concept suggested for identifying the opportunity for public involvement uses the Study Network Analysis. This network identifies the sequence of responsibilities for each of the planning agencies in the development of the appendices and the main report. A Network Analysis is enclosed at the end of this issue. Superimposed on the sheets are notations where the various public groups could provide the most significant input to the planning process.

The democratic process implies public involvement in the decision-making process. This process involves the legislative bodies and action groups of the community, but it does not always provide opportunity for expression of all interests and concerns. This is particularly true when the community increases in size, and when the mobility of the people develops intercommunity relationships.

The task of the planners is to establish a means for involving the various elements of the public, at such a time and in such a manner, that involvement will lead to a constructive development of the planning program.

There are several definitions for the term "public," and these definitions need to be limited to a few categories to enable clarification of how the separate, or collective publics, can participate in the planning process. Six categories have been identified:

(a) General (G).--The basic public group is the people, the "grass roots" of the community. These individuals are the foundation of the democratic society. This classification should also include local public and private schools, and the local organizations that are not oriented to the concerns or use of the natural resources.

(b) Special interest groups (SI).--Many organizations have been created publicly and privately to address issues and problems concerning the natural resources. These groups may have primary goals related to natural resources such as environmental action groups or the academic field, or they may have secondary interest toward the natural resources such as business and civic organizations.

(c) Advisory groups (A).--There are many groups organized to provide technical and consulting services in the planning and management of the natural resources. They may be organized either as a public or private group.

(d) Government entities (GE).--This group includes public officials serving State, regional, county, city, village, and township governments. It includes both the elected official and the staff personnel appointed to serve the community.

(e) Composite group (C).--There will be times when each of the above designated groups may be involved simultaneously in the planning process. The term Composite Group could be used when segments of the public are to be involved in a program, or each of the individual groups could be designated for specific opportunities of involvement in the program.

(f) News media (NM).--The news media is listed as a separate group. It is considered to be a function of the planning process only from the standpoint of disseminating information. The news media is an extremely important element of the program to provide accurate information at the right time to inform each public group of the development of the planning process. An informed public will better enhance the capability of public involvement, and will better establish the credibility of the final report.

The above classifications of the public have been identified in order that planners may maximize the capability of public groups to provide input to the planning process. The term "planning process" includes all phases of planning from the first steps of education on the concept of the program to the final step of development. Because of the increasing complexity of planning programs, it is becoming more apparent that blending of the professional, the political, and the lay resources need to be capitalized upon to assure that the public welfare will be protected in the most democratic way.

Pay attention to the public. --The public should be encouraged to express its views verbally. Planners should be eager to hear the views of the people served. Hearings should be held AND THEN SOME ATTENTION PAID THEM. Perhaps the results would be less waste in not only unneeded but in unwanted projects.

The most frustrating thing of all is to care deeply, about the earth, about the quality of life, about the future, and then have no means to be heard. At taxpayer's expense or comapny expense, the greedy rush to Washington and pressure to get projects that will benefit them, and perhaps the area, economically (short term economics). One sits up late writing a letter that cannot possibly twist arms like a well paid lobbyist can. And when letters are written one has to question one project at a time. There doesn't seem to be anybody in charge who can take the long view and do what is right for now and the future. The greedy who rush out and pressure for their projects have an undue advantage. The greedy have only to want, have only to seek an immediate economic advantage that requires no knowledge of the project other than its immediate money-making abilities. And these lobbyists have staffs who can type decently and make a far better impression than a mere citizen. When you are getting something for nothing, you will accept even worthless things.

One of the Government's purposes in this democracy is to involve its citizens in public participation in planning projects. To safeguard our democracy, the citizen must make substantial contributions in the very beginning of the planning process or special self-seeking interests can exercise undue influence on agencies.

The Government must be reminded that it serves the people, not the other way around. The agencies developing a project must be required to hold public hearings and to listen to the public voice. They must be required to consider the hearing record. Furthermore, the water resources agencies must be required to make public their justification of the project. Far too often the agencies adjust the cost/benefit ratios with dubious figures that are never opened to public scrutiny.

Public meetings have turned out to be a travesty of justice and the democratic process. Not only were the meetings poorly run but people's concerns were not listened to and there was no interchange. There certainly was no atmosphere of harmony or mutual respect. Although this was probably the result of the personality of the bureaucrat involved, the feeling is general among lay people that agencies will do what they want to do and that people's wants and needs will not be met. There is good reason to be distrustful. Experience shows that you have to become militant and that too much planning is unipurpose.

Public involvement, understanding and support is the key to a successful culmination of a project, whether it be related to water, land, wildlife, highways or other natural and cultural resources.

Local people had a part in the preliminary planning, stated one agency. However, the local people knew almost nothing of the final or the preliminary plans. "Local people" proved to be just words which would lead one (and Congress) to believe that the Federal and State bureaus are just doing what the people want. It's simply NOT true! Local people MUST be included in both preliminary and final planning.

Public wants to learn as well as express opinion.--The public should have a chance to speak and to learn more about what is going on.

The public should be allowed to enter into meaningful discussions and planning on all projects, and open public hearings should be held. Too often public hearings are not advertised at all and some projects sneak in by the back door. This sort of skulduggery will have to stop!

Citizens MUST have accurate information in order to evaluate projects carefully and be able to make good decisions. It is very difficult for the average citizen to do his homework, to prepare his thoughts and then his comments, and then to get them where they will presumably be heard and registered. If this country really believes that citizen participation is not only valuable but necessary for continuation of the democratic process, then the government must do everything it can to make citizen action easier and more meaningful. And such encouragement must be authentic or even greater alienation of citizens will result.

All plans, reports, data, data analysis and interpretation, and other information bearing on water resources projects, no matter what stage of research, planning and development must constantly be open to public scrutiny and comment. The days are gone when representative public agencies can operate independently of all but a few political and economic power brokers.

Local people want strong voice.--Those affected by any project should have a strong voice in the matter, with all citizens allowed to express views. Environmental groups at all levels should be permitted to have a bigger part in all planning.

The people of the area being affected should be aware of a planned project well in advance. It seems that the only ones who know of the project before it is actually planned out are the special interest groups and the Congressmen they influence. Too many times, the people being affected find out too late to be a really effective force for or against the planned project.

Besides being aware of the project, the people should have a very definite say in its going forth. If there is a controversy over who has the final say concerning a project in a specific area, let an arbitrator or the courts decide what people should have what say, but not on what they will say. To accomplish this end, a series of public hearings ending with a vote on the project would suffice.

In most cases a few special interest groups, such as large land owners, construction companies, land developers, etc., with great financial power have the power over the majority. Majority rule (in people, not money) should control water planning. Full details of all benefits, costs, and private interest benefits should be revealed. Local opinion must be heavily considered and perhaps votes taken. The Principles and Standards should provide fair protection for all.

The people are tired of everything being decided in Washington, D. C. Costs of travel to Washington, D. C., for expressing one's views on water resource issues are entirely prohibitive to the average taxpayer. You can ask for letters to Washington as a form of vote, but it is much easier for you to gauge intensity of feeling in hearings.

Guideline considerations.--It was recommended that there be specific mechanisms incorporated in the Principles and Standards for public participation, both at the planning level and the implementation level. The best time to begin such a review is in the initial planning phase, to determine what the people wish -- more or less development, more open space, more recreation and wildlife, more or less population input, greater economic growth, etc. These are basic questions that cannot be left solely to planners that necessarily have a vested interest in development. Public hearings should be scheduled, given sufficient public interest, at each step of planning process, from the definition of the objectives to the economic, social, environmental and political factor considerations.

Planning agencies should advertise and conduct workshops in which alternative proposals would be explained in some detail to interest citizens. Efforts to achieve citizen participation will sometimes prove frustrating because of public apathy. The recommendations of planning agencies may not be legitimate unless the public has been given a reasonable chance to influence their development.

There is one river basin commission with an appointed citizen advisory board that is functioning very well. The procedure now being used for unit planning "listening sessions" on the eastern national forests should be adopted for water development. Such public involvement should not be left to the discretion of the agency but should be made mandatory in the Principles and Standards.

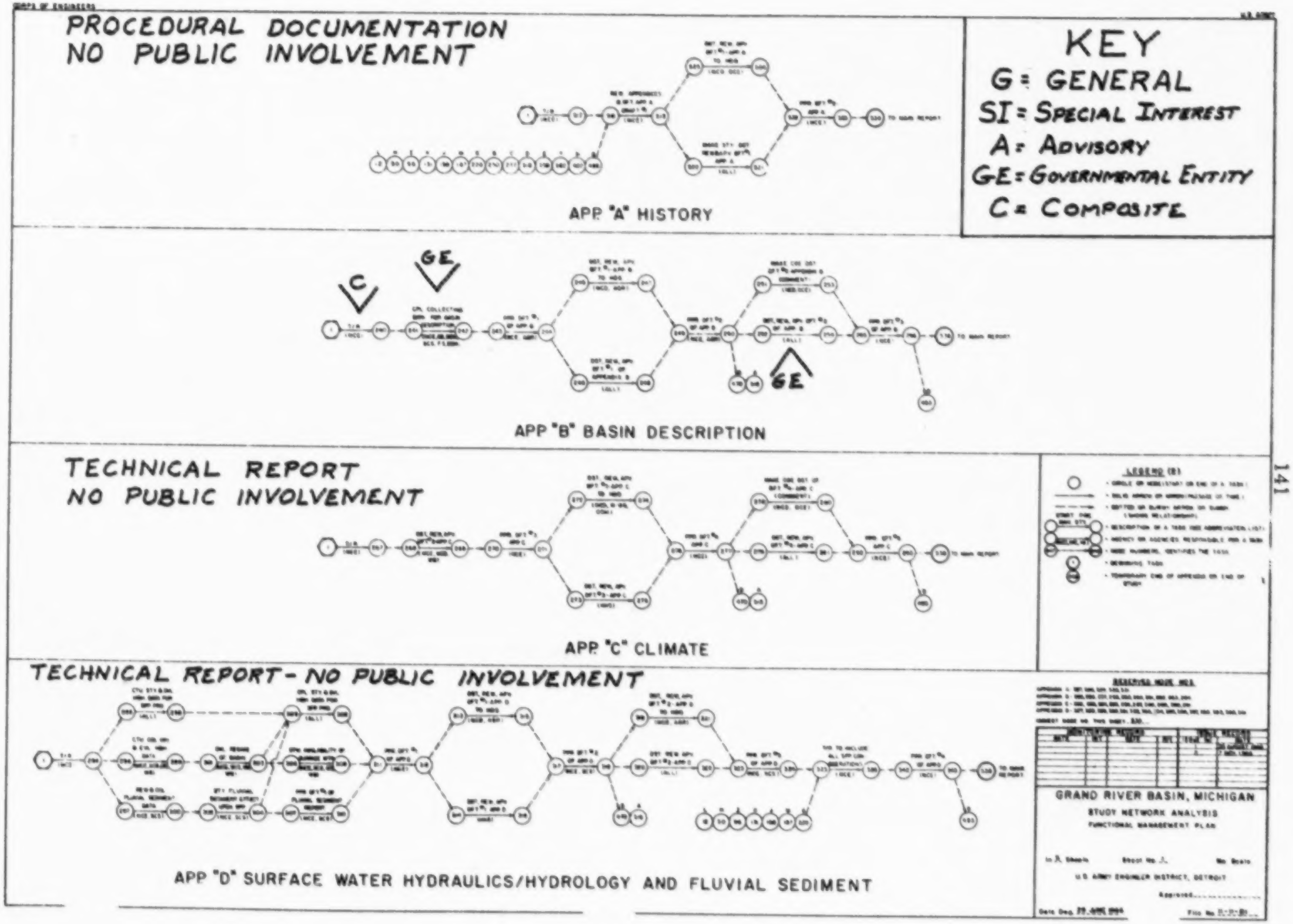
Hearings should be scheduled on evenings and Saturdays to give those desiring to be heard an opportunity. Equal time should be honestly given to the average citizen's complaints and demands. Ninety day notice should be given for hearings and they should be in a place convenient for the people in the area concerned with the project. Hearings should be given the widest possible publicity with their purposes clearly outlined: tell what should be considered as costs and benefits for the region and for the Nation as a whole about the project.

It should be up to the agency involved to explain the bad effects as well as the good and what the project will and will not do. Wide distribution of detailed information, and easy access by the public to such information--at nominal publication cost if necessary--are vital to successful planning. The public should have free access to the construction site to see that environmental quality is being maintained to the maximum degree.

Debate should be structured and organized to consider alternatives at each significant level and to take maximum advantage of the lessons of the past as we move into an age where the environment can no longer be regarded as a free good. Public interest and participation is most critical during the development of plan priorities and evaluation of alternatives. Following such involvement, decisions on priorities become more meaningful and are met with less resistance. Environmentalists should be consulted because they can often point out potentially adverse effects as well as alternatives which might otherwise be ignored.

Although no reference is given to individuals and agencies who participated in drawing up the proposed Principles and Standards, no responsible citizen with an environmental organization was known to have participated in this work. It is proposed that the Water Resources Council provide, through appropriate grants, funds to responsible environmentalists so that they can improve the proposed Principles and Standards. It is further requested that the proposed Principles and Standards not be adopted until responsible environmentalists have had the opportunity to take an active part in helping to revise them.

The Principles and Standards must require that all the implications of each water project be fully explored by experts, the public, and those requesting the project. The Government should provide a budget for citizen opposition to the Government project suggested. Both sides of the question must get equal time and have the finances to make their studies and conclusions without becoming "beholden" to anyone. If public involvement is a key element of the planning effort and is established as a needed product for developing objectives and goals, and preparation of plans for a given region, the cost for public involvement should be considered as an investment in the planning program.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PROCEDURAL DOCUMENTATION
NO PUBLIC INVOLVEMENT
TO MAIN REPORT
APP "A" HISTORY
KEY
G = GENERAL
SI = SPECIAL INTEREST
A = ADVISORY
GE = GOVERNMENTAL ENTITY
C = COMPOSITE
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TO MAIN REPORT
APP "B" BASIN DESCRIPTION
TECHNICAL REPORT
NO PUBLIC INVOLVEMENT
TO MAIN REPORT
APP "C" CLIMATE
LEGEND (B)
TECHNICAL REPORT - NO PUBLIC INVOLVEMENT
TO MAIN REPORT
APP "D" SURFACE WATER HYDRAULICS/HYDROLOGY AND FLUVIAL SEDIMENT
GRAND RIVER BASIN, MICHIGAN
STUDY NETWORK ANALYSIS
FUNCTIONAL MANAGEMENT PLAN
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U.S. ARMY ENGINEER DISTRICT, DETROIT
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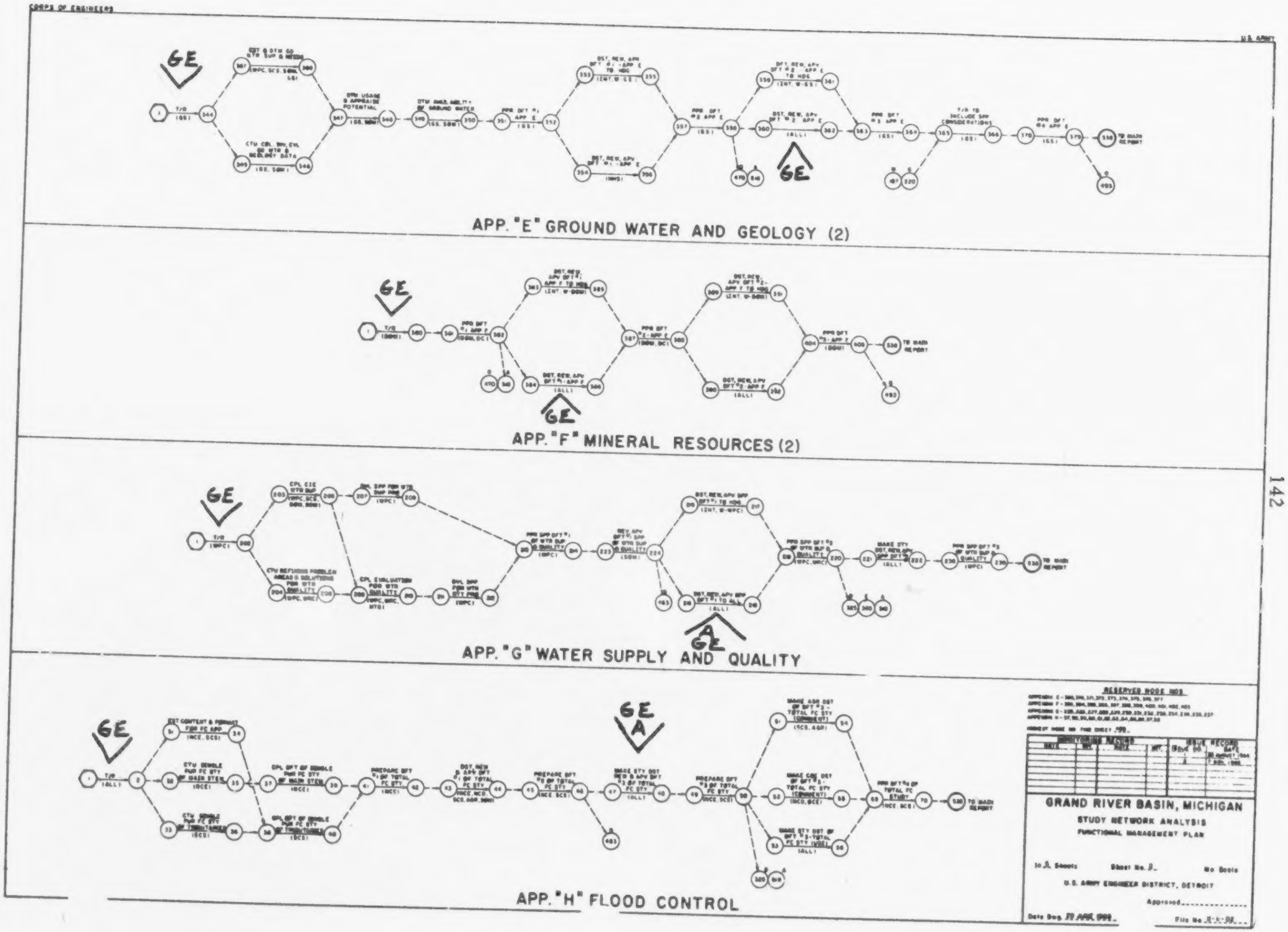
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APP. "E" GROUND WATER AND GEOLOGY (2)
APP. "F" MINERAL RESOURCES (2)
APP. "G" WATER SUPPLY AND QUALITY
APP. "H" FLOOD CONTROL
RESERVED NODE NOS.
ISSUE RECORD
GRAND RIVER BASIN, MICHIGAN
STUDY NETWORK ANALYSIS
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Sheet No. 3
No Scale
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Approved
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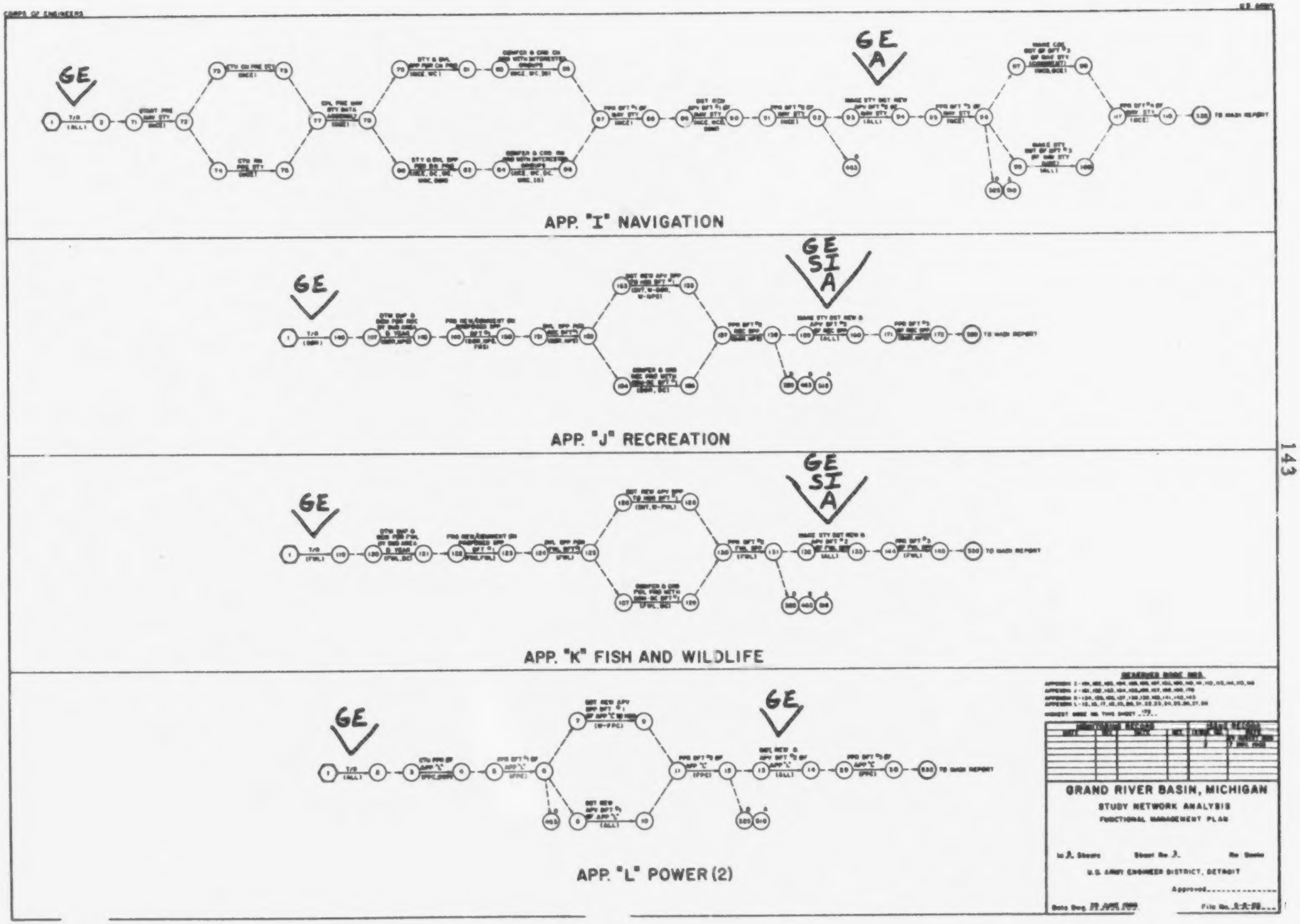
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APP. "I" NAVIGATION
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APP. "J" RECREATION
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SI
A
TO MAIN REPORT
APP. "K" FISH AND WILDLIFE
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APP. "L" POWER (2)
GRAND RIVER BASIN, MICHIGAN
STUDY NETWORK ANALYSIS
FUNCTIONAL MANAGEMENT PLAN
In 3 Sheets
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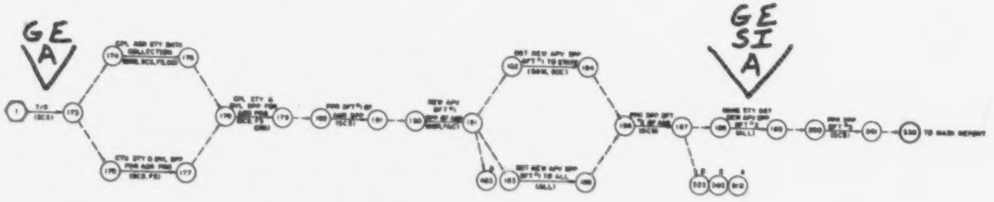
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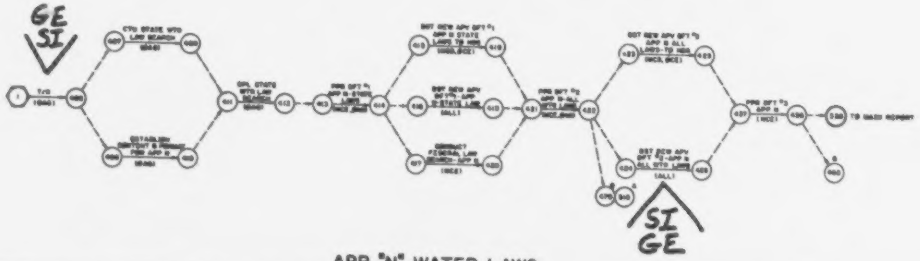
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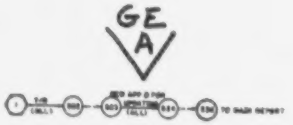
APP. "N" WATER LAWS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APP. "Ø" ECØNØMIC BASE STUDY

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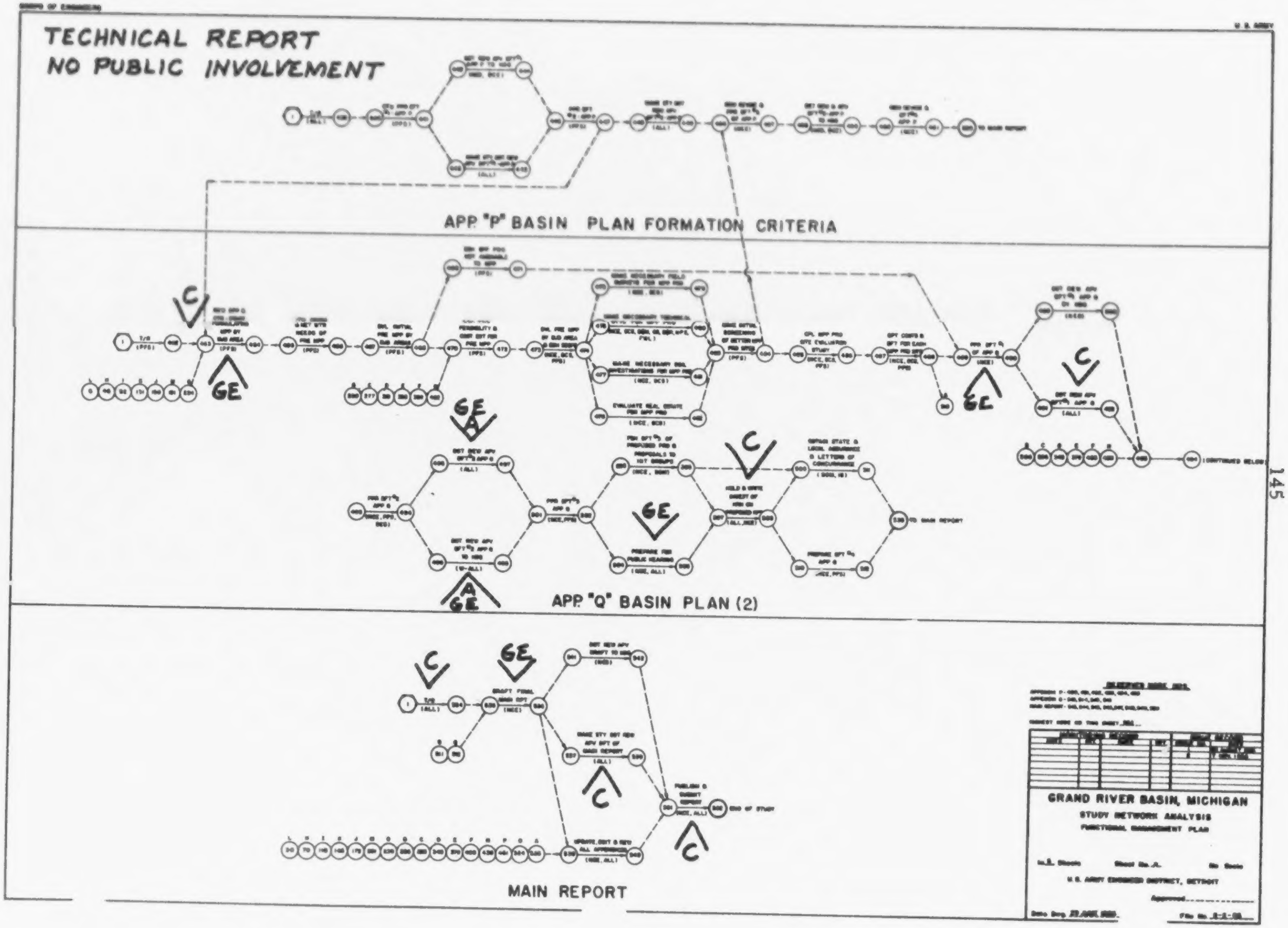
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NO PUBLIC INVOLVEMENT
APP. "P" BASIN PLAN FORMATION CRITERIA
APP. "Q" BASIN PLAN (2)
MAIN REPORT
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END OF STUDY
GRAND RIVER BASIN, MICHIGAN
STUDY NETWORK ANALYSIS
FUNCTIONAL MANAGEMENT PLAN
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Executive Branch Versus Legislative Authority to Establish Principles and Standards

The statutory authority (P. L. 89-80) of the Water Resources Council provides that:

> "The Council shall establish . . . principles, standards, and procedures for Federal participants in the preparation of comprehensive regional or river basin plans and for the formulation and evaluation of Federal water and related land resources projects."

Some of the comments (50) reflected the thought that Congressional authority was being usurped or challenged by the wording of certain provisions in the Principles and Standards.

The grandfather clause, requiring all projects to conform to the Principles and Standards that have been authorized by the Congress and on which actual construction or other similar activity has not commenced within 5 years after authorization, is a flagrant invasion of the powers reserved to the Congress. Its use would constitute an effective vote over acts of Congress in a manner neither contemplated nor permitted by the Constitution or statutory law.

Authority for establishing standards and discount rates should be vested solely in the Congress and not a bureau that has no comprehension of what the will of the people might be.

It is important for the public and the Water Resources Council to recognize that having to review authorized projects under the 10 percent rate will result in previously approved projects having an unfavorable benefit/cost analysis. These are projects which have been studied carefully by the Congress and which have been duly authorized through the legislative process. They have also been signed into law by the President of the United States or by one of his predecessors. For the Water Resources Council to attempt to circumvent or set aside the clear decisions of both the Congress and the President through administrative channels is simply beyond recall.

The Principles and Standards overlook or ignore that Congress gave approval to evaluate Regional Development when they authorized certain projects.

The grandfather clause states that the Water Resources Council is assuming authority to review Congressional approvals and authorizations every five years. If this is so, Congress has surrendered to the Water Resources Council the right to determine what water projects are of benefit to the people.

It appears that the Principles and Standards are proposed only for one purpose, and that is to take the Federal Government out of water projects. If this is the purpose behind it, then Congress should make the decision, and not leave it up to the executive branch. Guidelines for justification of water resources development projects have previously been set by Congress and they should be handled in such a manner.

In the final analysis, confidence is expressed that the Congress of the United States will never relinquish to anyone or any agency its absolute responsibilities to set policy for the continued development of this action.

The Water Resources Council has assumed too great an influence over the implied intent of Congress in authorizing and advancing water resources projects. There is sympathy with the concept of reducing the backlog of projects. It is suggested that the Congress, upon advice from the Water Resources Council and the States, act to deauthorize those projects of questionable value.

Support for executive review of projects generally was as follows:

The Water Resources Council should support the viewpoint of the Office of Management and Budget. If a project is sound and fulfills a real need it will achieve a favorable cost benefit ratio even if the discount rate is established at an honest level. It will probably disqualify many pork-barrel endeavors but it is hoped the Water Resources Council will not regard this circumstance as tragic.

5. ISSUES RELATED TO OUTPUT CHARACTERISTICS AND BENEFICIARIES

Benefits Distribution and Priority

Comments (36) were received on the impact of benefits, on National Economic Development, on flood control and the flood plain, on income distribution and its effect on social well-being, and concerning navigation and/or transportation.

Benefits, National Economic Development, flood control and the flood plain.--Some of those commenting on benefit impacts discussed one facet of National Economic Development. These proponents pointed out that as irrigation is developed within a new area, Federal excise and income tax collections increase markedly. These collections eventually equal the cost of construction of the Federal reclamation project and thereafter periodically repeat this accrual. Thus, it was recommended in the final Principles and Standards the system of accounts should include under National Economic Development benefits the bonus in tax collections to the Federal Treasury resulting from the proposed plan. The Water Resources Council was requested to describe this National Economic Development benefit in the narrative and in the tables in the Principles and Standards.

Another comment regarding National Economic Development pertains to the external economics of production. True National Economic Development is achieved when direct benefits exceed direct costs. No effort should be made to bring in benefits from "external" productivity gains as is now contained in section III B of the Principles and Standards, because the concept of external productivity gains has led to endless abuse in several other contexts. It is logically possible to find such benefits and they can be empirically identified in retrospect. But they are seldom correctly anticipated. On the contrary, the expectation of external productivity effects has often led to endless subsidies with little public benefit.

The concept of National Economic Development has been presented in support of a number of counter-developmental concepts. Among these are subsidies for civil aviation, the Supersonic Transport, the merchant marine, navigation on inland waterways, and barriers to international trade, to name only a few. The justification, to the extent that economic rationality can be marshalled in support of these policies, falls into two categories: (1) the "infant industry" argument and (2) agglomeration effects.

If an "infant industry" can be made competitive by subsidizing its early growth, it will eventually be able to stand on its own. Unfortunately, often this is made plausible because economies of scale make possible improved productivity with size. The difficulty is not with the validity of the argument in its proper context, but in its application; subsidies have a way of becoming permanent. The infant industry becomes a dependent adult. All of the above cited industries, as well as many others, are being subsidized and protected from international competition. However, they would be better off with a reduction of protective barriers. Supply industries become oriented to the needs of subsidized users. Communities grow dependent on employment in subsidized industries. Capital is invested; jobs and skills developed. A community of interest is built up around an economic dislocation that starts out to be transitory but almost inevitably becomes permanent.

Agglomeration effects are generalized scale effects of the same kind as previously noted for particular industries. With the growth of a community as a whole, social overhead in the form of public services, police and fire protection, schools, electric power production, and so on, all experience scale effects. Industries benefit from locating in proximity to one another. Transportation costs to markets are less when large markets are nearby. Gains from growth are mutually reinforcing. At some point, congestion effects, disutilities of crowding and costs of pollution work against the process. Agglomeration effects will occur with growth, but to try to deliberately create them implies more knowledge of the connection between growth and water projects than currently exists. The attempt to include them is an open invitation to consider speculative matters on which no final decision can be made.

Another benefit measurement problem is the estimation of flood damages. The Principles and Standards state that flood control benefits can be estimated by looking at the change in flood damages; but this method is accurate only when the intensity of land use is unchanged. If land use becomes more intense, this method generates an underestimate, and when less intense, an overestimate. No provision is made for this in the Principles and Standards. This has become increasingly important in view of the greenbelt procedure used on recent dam projects.

Under the greenbelt procedure, land below the dam is purchased and allowed to develop as grassland. There are no damages on this land because there are no longer any crops, but agencies estimate flood control benefits the same way they did before. This constitutes a gross overestimation of flood control benefits. A specific statement should be included in the Principles and Standards to the effect that a substantial reduction in intensity of use due to a greenbelt must be reflected in estimates of flood control damage.

Another concern expressed was the concept of claiming benefits in flood control projects for future development of flood plains. This policy assumes that the best use of a flood plain is human occupation, and tends to encourage further flood plain development, leading to the need to build more and more flood control structures. On the other hand, the concept of flood plain management, wherein structural occupation is limited and the flood plain is devoted to purposes not seriously affected by flooding, has gained widespread acceptance. It is a concept far more sound--both environmentally and economically--than encouraging development, and then building structures to protect that development. It is too late to do anything about many of the highly developed flood plains throughout the country. But the Principles and Standards could be a significant factor in encouraging proper flood plain management in the future. To do so, project benefits for future flood plain development should be eliminated.

The National Economic Development account does not adequately account for land costs. One of the major economic adverse effects of building a dam shows up in the cost of land acquisition. Given the presumption that the value of land captures the benefits of alternative uses of the land, this procedure is sound. However, when a dam destroys a scenic river, a special problem arises. This problem is greater in some States than in others because of free access of the public to the free-flowing rivers. Free access accords greater value to that land than can be captured by the market. To the extent that free access exists, the cost of land acquisition does not adequately account for the value of alternatives foregone. This should be specifically stated in the Principles and Standards.

Income distribution and its effect on social well-being.-- An important omission in the Principles and Standards is the effect of water projects on the distribution of wealth in our society. The only relevant standard is under the general heading of "Social Factors" (Part III, F, 4, a, page 24165) where "The income distribution effect can be measured as the net amount of total and per capita income accruing to designated persons or groups.", while the adverse income effect is the net decrease in income. It is the relationship between these "effects" that counts: who gains, and who loses. Most water projects, probably all of them, have their most important impact--other than environmental--through the redistribution of wealth. And the redistribution goes entirely contrary to what normally would be assumed, for it is the rich who gain.

An example is a $480 million undertaking which provides water to a 550,000-acre area. As of 1968, 18 farmers owned 220,000 acres in this area; 58 more owned virtually all the rest of the irrigable acreage. As a result, the project benefits 76 farms. These farms are not mere beneficiaries by chance; they include the leading welfare recipients in the country. One farmer, for example, received over $6 million in price and crop subsidies alone last year.

The fact that this project helps such a wealthy few has an enormous adverse impact--far beyond the mere fact that these millionaires are receiving handouts from taxpayers with average incomes below $10,000 a year. According to some university economists, the new and renewed acreage receiving this water will blossom with high value crops, crops which now sustain the living of small farmers. But since these beneficiaries are so large and wealthy, they will be able to undercut existing prices, withstand a few years of loss, and thereby wipe out perhaps thousands of small farmers in this area. Another water project has an income redistribution program on a far greater scale. Taxpayers will foot 48 to 65 percent of the bill, while real beneficiaries will number in the few thousands.

By failing to develop an account which measures this redistribution, the Water Resources Council is overlooking one of the most important aspects of water projects. Even when the net benefits outweigh the costs, the distribution of those costs and benefits is critical to the ultimate question of whether the project is desirable or not. The Water Resources Council's analysis stops too short. Standards should be developed for measuring and displaying the distribution of benefits according to such criteria as the wealth or landholding size of the receivers and the payers.

Another alternative is to remove the display of project impacts on income distribution from the display of accounts. Not enough is known about the determinants of the income distribution. Knowing that some people will get jobs at a particular wage rate conveys little, if any, information about the changes in income distribution. It is dangerous to display this informa-because it implies we know something, when in fact, we do not.

A further comment concerns one of America's minorities. The proposed Principles and Standards indicate that income redistribution is a benefit to be taken into account in assessing a water resource development plan. It is important to eliminate the tendency for the benefits of public resources to flow to higher income groups. Therefore, income from land and water resource development projects definitely flowing to low income groups, especially Indians, should be weighted more heavily in the decision process than similar income accruing to groups with relatively high levels of income. This is only logical in view of the principle of declining marginal utility of income. Weighting schemes, although not specifically designated as such, are used every day by Government. Veterans' preferences on Civil Service examinations, the Philadelphia plan for minority hiring, and relaxed admissions standards for minority students in public universities are common examples. True, any weighting scheme will imply a value judgment. But, the position of the American Indian is unique in the United States; he is logically and morally entitled to special preference.

Indians are by far the poorest minority group in this country. The annual median income of the American Indian family is $3,500. This should be contrasted with the average American family, whose median income is $10,664. Even

Blacks, whose poverty has received an enormous amount of sympathetic attention in the past two decades, have a median income almost twice that of Indians--$6,500 per year. To allow this disparity to continue implies that it is the judgment of the American people that an additional dollar's worth of income to an Indian is equivalent, in terms of equity, to three dollars' worth of income to an Anglo-Saxon.

It is proposed that the Water Resources Council adopt Principles and Standards weighting benefits and costs accruing to Indians from water and land resource development projects. In computing the benefits and/or costs of any project that may have an impact on Indian lands, the benefits and costs accruing to Indians should be weighted by a coefficient of three to reflect the ratio of Indian median family income to that of non-Indians. Then, as the disparity of income between Indians and non-Indians decreases, it is only appropriate that the coefficient be reduced to reflect the reduced magnitude. Similarly, should the income dispartiy increase, the coefficient should be increased. The Water Resources Council should review periodically median income figures in order to update the weighting factor.

Navigation/transportation.--The Principles and Standards provide on page 24156, in part, as follows:

> "The beneficial effects from the movement of traffic are related to the improvements in the transportation services provided, enabling the widespread distribution of goods and services, and are measured as:
>
> a. The savings in the movement of commodities on the waterway when compared with movement via existing alternative modes; and
>
> b. The expressed willingness to pay by the shippers (producers) of commodity or traffic flow newly induced by a navigation improvement as reflected in the change in their net income.
>
> "(2) Where traffic will move in the absence of the waterway improvement. In this situation, navigation studies would include an estimate of the

savings to shippers via the considered navigation improvement, measured as the product of the estimated traffic and the estimated unit savings to shippers from the movement of that traffic via the proposed navigation improvement. The unit savings would be measured as the difference between the charges shippers actually incur for transportation at the time of the study and the charges they would likely incur for transportation via the improvement.

"The traffic that is estimated to move via the proposed waterway will be based on a thorough analysis of the existing traffic movements in the tributary area. . . ."

"The estimate of savings will ordinarily be developed by comparing the full charges for movement from origin to destination via the prevailing mode of transportation with the charges via the waterway being studied, where these charges encompass all applicable handling, switching assessorial charges, and net differences in inventory, storage, or other charges due to the change in transportation mode. . . ."

"(3) Where additional flow of traffic is induced by the plan. By making new sources of supply, or by increasing the net demand for a commodity, the navigation improvement may induce more traffic movement than would be the case in the absence of such improvement. Beneficial effects creditable to the plan for such new traffic are the differences between the cost of transportation by the waterway and the value to shippers, that is, the maximum cost they would be willing to pay for moving the various units of traffic involved."

"(4) Basis for evaluation. Congress has provided the standard for computing the beneficial effects of navigation in section 7 (a) of the Department of Transportation Act of 1966, as follows:

> ". . . the primary direct navigation benefits of a water resource project are defined as the product of the

> the savings to shippers using the waterway and the estimated traffic that would use the waterway; where the savings to shippers shall be construed to mean the difference between (a) the freight rates or charges prevailing at the time of the study for the movement by the alternative means and (b) those which would be charged on the proposed waterway; and where the estimate of traffic that would use the waterway will be based on such freight rates, taking into account projections of the economic growth of the area."

The Principles and Standards raise certain questions regarding the computation of navigation benefits. The Department of Transportation Act lays down the formula for determining the primary direct navigation benefits, and the Principles and Standards do take note of this provision. However, the Principles and Standards seek to modify the Congressional formula in at least two respects:

1. For purposes of comparison with the prevailing mode of transportation, estimated barge rates would have to "encompass all applicable handling, switching assessorial charges, and net differences in inventory, storage, or other charges due to the change in transportation mode." (Page 24156.) The Department of Transportation Act makes no such stipulation. Inauguration of a waterway movement would obviously involve inventory changes and possibly new transfer charges. If these factors are to be considered, it is only fair and proper that the analysis also include the costs to shippers resulting from such factors as equipment shortages, strikes, delayed or lost shipments, etc. Why should the criteria only consider costs adverse to the waterway movement?

2. Beneficial effects of navigation are to be measured, according to the Principles and Standards quoted previously as (a) savings in transportation costs and (b) 'The expressed willingness to pay by the shippers (producers) of commodity or traffic flow newly induced by a navigation improvement as reflected in the change in their net income." This proposition would require

navigation improvements to be justified on the basis of transportation costs rather than transportation rates. Transportation costs are difficult to determine, especially railroad costs. All railroad rates are supposed to cover fully distributed costs, but a recent Department of Transportation study indicated that perhaps 40 percent of all rail rates were less than compensatory. This situation came about because railroads have historically reported low "out-of-pocket" costs when they wanted to lower rates and high "fully distributed" costs when they wanted to raise rates. The cost-of-transportation concept is a fine theory, but it is hardly practical in analyzing the economics of water versus rail transportation. It is also in direct conflict with the formula set down in the Department of Transportation Act. This is a basic inconsistency in the proposed Principles and Standards which should be resolved by elimination of the "willingness to pay" stipulation.

The requirement on page 24148 (part V, Plan Formulation) appears to be amplification of subparagraph 2 of paragraph C, "Standards for Formulation and Evaluation of Plans" of section V of Senate Document 97, which stipulates that "Comprehensive plans shall be formulated initially to include all units and purposes which satisfy these criteria in quantitative economic terms: ... (b) Each separable unit or purpose provides benefits at least equal to its costs."

Criteria for evaluating benefits that would accrue from a proposed waterway improvement project should be applied on a fair and equitable basis. The division of a channel into inequitable increments for the purpose of determining the relationship of benefits-to-costs is likely to leave the upper portion of the channel with an unfavorable benefit/cost ratio and consequently without economic justification for the proposed improvement, even though the benefit/cost ratio for the channel as a whole is favorable and justifies the proposed improvement from an economic standpoint. Unless the increment of channel length criteria is applied on a fair and equitable basis, industrial establishments located on the upper reaches of a channel may be denied the advantages of a deeper and wider channel and consequently be deprived of savings in transportation costs that would otherwise be realized if the channel were improved. It should be emphasized that in those cases where the increment of channel length criteria is employed it should be applied so as to include those companies located in the upper reaches of the channel, which require the channel improvement in the interest of more efficient and economical operation of vessels. If this procedure is not followed, companies located at the upper end of the channel will be disadvantaged from an economic and competitive standpoint in relation to benefiting companies located on the lower and middle portions of the channel.

A disappointment with the treatment of transportation in the Principles and Standards was expressed. Once calculations have been made to establish some sort of rate differential in projects, some very unrealistic assumptions concerning growth factors have been used for unreasonable periods of time. An example is an analysis completed in 1955 to establish a rate differential between land-based and water-based transportation on a project which was to have been in operation in 1965. When 1965 comes and passes, the usual action has been to simply change the base under which the calculations were to prevail, and artificially advance the entire benefit structure associated with the transportation benefit. This practice seems to be of questionable economic validity. By requiring the analysis to be updated, along with the assumption, within a specified period of time--say every five years at a maximum--then part of this problem will have been solved.

Another view on the basis for evaluating navigation benefits concerned Section 7(a) of the Department of Transportation Act of 1966. One of the major reasons for undertaking to revise the old planning standards was presumably to get rid of archaic language and to provide appropriate guidelines in light of changing public values. The Principles and Standards should specifically state that before any canal is built, a comprehensive transportation study of the area must be completed to insure that such a canal is in accord with the Nation's overall transportation needs. It is not legitimate to compute the benefits of a canal by the change in freight rates unless language is inserted on page 24156 of the Principles and Standards providing that the new rates reflect the full cost to society of the project and the value that society places on such transportation will exceed the costs.

The measurement concepts and procedures for evaluating navigation project effects under the National Economic Development Objective have serious deficiencies in the proposed Principles and Standards. Little or no attempt has been made to evaluate the benefits for this objective from the comprehensive public viewpoint. From such a viewpoint, for example, the National Economic Development benefits due to the increased output of the Nation's goods and services should be the increased value "to the Nation" rather than "to the users."

Lumping together of all National Economic Development benefits for navigation and other water resource projects under the single heading of "Measurement of the Value to Users of Increased Outputs" leaves much to be desired. As indicated above, the national public viewpoint measurement should be the value "to the Nation" of increased outputs. Second, for navigation projects there is usually no increase in the Nation's total output of transportation service since nearly all of waterway traffic would move in the absence of the project. Third, there is no consideration of standards for measuring improvements in national economic efficiency.

The Principles and Standard state that "Plans for the provision of transportation through inland waterways and harbors are established to complement or extend the overall national transportation system..." to the extent that nearly all of the inland waterway traffic would move in the absence of the project. However, it is more correct to indicate inland waterway facilities primarily replace or serve as a substitute for existing transportation facilities. This is particularly significant since the railroad industry transportation facilities are considerably underutilized. The Principles and Standards also indicate that navigation projects are established to achieve "an improved movement of goods" and that the beneficial effects are related "to the improvements in the transportation services provided." The Principles and Standards fail to indicate what these improvements consist of. They neither state nor imply that any improvements are obtained with respect to the speed of the movement, the quality of the movement, or the total cost of the goods and services (i.e., resources) necessary to provide the movement.

The following statement on page 24156 of the Principles and Standards is completely inadequate: "The beneficial effects...are measured as: The savings in the movement of commodities on the waterway when compared with movement via existing modes;". This statement fails to indicate savings in what and to whom. The key words omitted are "the cost of providing" which should follow the words "the savings in." Prior standards (including the present standards in Senate Document 97 and the May 1950 and May 1958 standards) plus the Council's Special Task Force report of June 1969 on "Procedures for Evaluation of Water and Related Land Resource Projects" clearly state that, for commodities which would move in the absence of the project, the (net) benefit (from the national public viewpoint) is (equal to and can be) measured by the "saving as a result of the project in the cost of providing the transportation service." This wording should be retained.

The procedure (hereinafter labeled method #1) for measuring the net project benefits to the Nation directly (without determining which groups are affected and to what extent) has been called the "cost of providing the service" procedure. It is based on a comparison of the relative efficiency of the various modes of transportation and requires a determination of the incremental (or avoidable) cost required to provide the transportation service.

Theoretically, this "cost of providing the service" procedure (method #1) does not conform to the comprehensive public viewpoint requirement for the evaluation of project effects since it does not "include consideration (determination) of all effects... that may be expected to accrue to all persons and groups within the zone of influence of the proposed resource use or development." The alternative to benefit evaluation method #1 is a method (hereinafter labeled method #2) which evaluates all effects to all persons or groups. Evaluation method #2 is stated as follows:

> "The economics of such transportation service (that is the product of navigation improvements) must be determined from a comprehensive public viewpoint which includes consideration of all effects, beneficial or adverse, short-range, or long-range, that can be expected to be felt by all persons or groups in the entire range of influence of the project."

With this method, the effect of the project on each group, which is directly affected, is determined separately. The sum of the beneficial effects gives the National Economic Development benefit. This is balanced against the sum of the adverse effects, which in the proposed Principles and Standards would be displayed separately. With method #2, no attempt is made to evaluate the secondary or induced effects: (a) to producers or consumers of the prospective waterway traffic; (b) to those shippers, without access to Federally financed inland waterways, that compete with the prospective waterway shippers; or (c) to other shippers who would continue to rely on the present transportation carrier, and who may be faced with rate increases intended to recover that portion of the carrier's fixed costs which had previously been covered by the traffic diverted to the waterway.

With method #2, the benefits to the waterway shippers are the savings in freight rates. The waterway carriers benefit from an increase in net income on new traffic which the waterway provides, and the existing carriers experience an adverse effect due to a loss of net income on traffic diverted to the waterway. The net gain or loss in income to each mode is the difference between the cost of providing the transportation service and the rate charged for the service. The net benefits of the project with method #2 are essentially the same as with method #1, provided the effects to all the directly affected groups are evaluated.

While evaluation method #1 is required for implementation type studies in the proposed Principles and Standards, an added reason for specifying method #2 in the proposal is the fact that Congress in the Department of Transportation Act has defined (and established the procedure to be followed in determining) the "primary direct navigation benefits" to "shippers using the waterway." Since this procedure applies specifically to the situation (covered in heading d (2) on page 24156) where traffic will move in the absence of the waterway improvement, and since these procedures are precisely those specified by Congress in the Department of Transportation Act, it would appear appropriate to omit heading d (4) and insert the direct quote from section 7 (a) under heading of d (2).

The principal deficiency of the procedures in the proposed Principles and Standards for evaluating navigation project effects is that they omit consideration of the effect of navigation projects on any group other than the waterway shippers. We do not interpret the Department of Transportation Act as prohibiting the determination of beneficial or adverse effects to other groups.

Unless the Water Resources Council intends to completely abandon the comprehensive public viewpoint in water resources planning and evaluation, it is urged that the Water Resources Council include in the National Economic Development account the direct benefits of navigation projects to waterway carriers due to increased income. It should also include as an adverse effect the loss of income by transportation modes from which traffic is diverted. The gain or loss in income is the difference between the cost of providing the transportation service and the rate charged for the service. Both the May 1950 and May 1958 water resource evaluation standards required, when using method #2, that the navigation project benefits "be adjusted for any reduction in net income by transportation services from which traffic is diverted." This requirement should be carried forward in the new procedures.

It is important for the Water Resources Council to establish procedures from the direct measurement of benefits due to improvements in national economic efficiency for at least those water resources uses (hydroelectric power and commercial navigation) where there are alternatives in the private sector and where water resource development decisions should be based primarily on a comparison of the relative efficiency (resource costs) of alternatives. Consequently, it is recommended that the standards present and specify the use of evaluation method #1 rather than method #2 for this specific purpose. Method #1 would therefore be presented as the procedure to be used to directly measure the improvement in national economic efficiency with respect to existing or alternative transportation facilities and service.

Increased Recreation Output--Measurement of the Value to Users

The Principles and Standards state that "Beneficial effects of national economic development are the increases of the value of the output of goods and services and improvements in national economic efficiency" (page 24153). Generally, the comments (16) on recreation fall into seven areas: Willingness to pay concept, Travel-distance approach, Simulated prices per recreation day, Evaluating losses and determining costs, Greater urban consideration needed, Alternatives for satisfying recreation needs, and General considerations.

Willingness to pay concept.--According to the Principles Standards (page 24157), outdoor recreation, for the most part,

> "...is produced publicly and distributed in the absence of a viable market mechanism. While the private provision of recreation opportunities

> has been increasing in recent years, analysis of recreation needs is conducted in the absence of any substantial amount of feedback from effectively functioning markets to guide the evaluation of publicly produced recreation goods and services. Under these conditions--and based on a with and without analysis--the increase in recreation provided by a plan, since it represents a direct consumption good, may be measured or valued on the basis of simulated willingness to pay. In computing the projected recreation demand, however, the analysis should take explicit account of competition from recreation opportunities within the area of influence of the proposed plan."

The Principles and Standards allocate recreation benefits by willingness to pay--not by need. But willingness to pay is not measured in a way which will accurately predict demand, since it is too closely correlated to ability to pay. Thus, a large reservoir near an urban area, if provided with good transportation facilities, might draw a great many urban people without cars, who could not afford to travel to the same reservoir in a remote rural area.

Furthermore, the willingness-to-pay concept is useless in determining the actual value of outdoor recreation to a person with a very limited recreational opportunity. The deplorable lack of recreation sites near cities should add an increased value to projects which are near urban areas.

Willingness to pay is to some extent an outmoded concept in recreation planning, and is only used if other measures are lacking. But if it is to be used, it should be used accurately. The distance driven is not a real measure unless it is clear that the person actually drove the entire distance just to utilize a recreation facility. The approach of having no standard of what people would pay to enter a project area is poor.

The Principles and Standards, in their treatment of willingness to pay, show no awareness of the forced options that make people willing to pay for things they would prefer not to purchase if other things were available. For example, people who would buy bicycles if there were places to ride them safely, the people who would prefer mass transit to driving their cars if mass transit were available, and so on are not considered.

Aesthetic appeal cannot be measured in recreation days, dollars and cents, or usage. Although it would be interesting to measure the rise of mental health problems in our country and the correspondingly increasing value of the balmy countryside.

Recreational benefits should not be quantified because current crude methods of estimating recreation demands are used to boost cost/benefit ratios. Extrapolation of current use trends is used to estimate future demands. The public chooses convenient recreation, and once the recreation is supplied and becomes in style, use increases. Canoeing could be encouraged but water skiing is encouraged instead--and now that water skiing is popular it is used as an excuse to dam more canoeing streams.

Unfortunately, when a reservoir inundates a prime recreation area, the people do not have much choice--either water-related recreation or nothing. This sounds like creating a demand for water-oriented recreation by providing a certain type of recreation facility. Creating an artificial demand for reservoir recreation by inundating natural river and stream habitat is not favored. Various agencies that do this, then justify their actions by pointing to the recreation on their lakes. What choice do people have? The artificial facility tends to concentrate recreationists, leading to environmental degradation.

Many existing projects considered economically feasible would be uneconomical without the inclusion of recreation as a benefit. In too many instances this aspect of the project receives great public attention in order to gain favorable reaction for the entire project. New knowledge concerning the life of reservoirs, new drawdown techniques of management control, and so forth, all tend to indicate that recreation benefits should be viewed with extreme caution.

Recreational benefits (page 24146, D, b, 4) are worth counting only when these are new recreationally speaking (a new sport) because nothing is more easily substituted than recreational activity.

Primary outdoor recreation benefits are measured by what people are willing to pay or give up to consume outdoor recreation, i.e., its price. Any price has two components: Money and time. The Principles and Standards mention two methods of how a *money* price of outdoor recreation may be calculated, but forgets the time price, which, in the case of outdoor recreation, is the really relevant component, as no money prices are directly available, except in terms of nominal entrance fees. The time price is the value of the time actually spent by recreationists at the recreation site, i.e., the value of visitor-hours or visitor-days. This time value can be estimated by making use of the income-opportunity cost theory, i.e., that the value of one visitor-hour spent in outdoor recreation is *at least* worth the foregone wages of the visitors. In order to compute a measure of *total primary outdoor recreation benefits*, the following elements must be added to the money time price (MTP):

a. An estimate of the money price of outdoor recreation,
b. The value of external economics of outdoor recreation,
c. Entrance fees, and
d. An appropriate value of the travel time.

The Principles and Standards state that alternative plans are to be compared to conditions which will exist without the plan. This is a key issue and will determine in many cases whether or not a project is approved, but no mention is made of how projections should be made for these baseline or "no plan" conditions. The Principles and Standards must be much more specific on the relationships between alternative plans and various levels of projections. It is apparent that a review and further clarification is needed.

Travel-distance approach.—The Principles and Standards set forth an approach relating travel cost to distance (page 24157).

> "...Using marginal travel costs (i.e., variable costs of automobile operation directly related to the number of miles driven) taken as a measure of what people are willing to pay for water-oriented recreation and how price affects use, the relationship between price and per capita attendance can be established for recreation sites and market areas. This relationship, the conventional demand curve having a

> negative slope, sums up the response of users' demand to alternative prices of the recreational product (or experience). Separate demand curves are constructed to reflect each kind of recreation use, whether day-use travel, camping-use travel, or other. If there is no entrance charge at the project, per capita rates for each distance or travel cost would be consistent with the constructed demand curves.
>
> "If a fee is charged, however, the cost to the recreationist would then be equal to the fee plus his travel cost, thus diminishing the per capita use rate. Applying a range of reasonable entrance fee charges to the constructed demand schedules, additional separate day-use and camping-use demand curves for sites are constructed to determine respective attendance which may be expected under such conditions. Following this, initial project year day-use and camping-use values are computed by measuring the area under their respective demand curves. These values can be compared with market projections and existing capacities to determine if actual site demand will materialize. The initial year values are then projected throughout the life of the project consistent with the calculated recreational use predictions. The resultant figures, total values for day and camping use over the life of the project, are separately discounted at the prevailing discount rate established by these standards to obtain average annual equivalent values."

The recreation benefit problems begin with the conceptually fallacious recommendation of a travel cost method of approximating recreation benefit values. It does not require too much analytic sophistication to realize that costs incurred for travel to a recreation area may have little or no relation to actual benefits of recreation to society.

It has often been recognized in the literature on economic evaluation of outdoor recreation that demand curves for recreation based upon the travel cost procedures are biased if they do not recognize that part of the cost of travel may be for other activities other than recreation. A complete explanation of this may be found in Analytical Economics of Outdoor Recreation: A Case Study of the Southern Appalachian Trout Fishery.

The value of outdoor recreation at any location depends strongly upon the geography of the population and the geography of all the likely alternatives, as well as the "quality" of the recreation. The travel cost-distance method is naive because the geography of alternatives is ignored. Techniques are available that can considerably reduce the naivete of that method. Research has shown that the best indicator of value per recreation day appears to be the distance users travel for the purposes of the recreation (not travel that includes other purposes), together with the additional distance that would be required to reach the next closest perfect substitute. The former is an indicator of consumer preferences and uniqueness, while the latter defines the maximum net willingness to pay for recreation at the closer site. The travel cost-distance method measures the all-or-none value of recreation, not the marginal value.

Simulated prices per recreation day.--The Principles and Standards set forth simulated prices per recreation day (page 24157):

> ". . . A single unit value will be assigned per recreation day regardless of whether the user engages in one activity or several. The unit value, however, may reflect both the quality of activity and the degree to which opportunities to engage in a number of activities are provided.

Type of Outdoor Recreation Day	Range of Unit Day Values
General--------------------------	$0.75-$2.25

> (A recreation day involving primarily those activities attractive to the majority of outdoor recreationists and which generally require the development and maintenance of convenient access and adequate facilities.)

Specialized--------------------------$3.00-$9.00
(A recreation day involving those activities for which opportunities, in general, are limited, intensity of use is low, and often may involve a large personal expense by the user.)

"Two classes of outdoor recreation days, general and specialized, are differentiated for evaluation purposes. Estimates of total recreation days of use for both categories, when applicable, will be developed.

"The general class constituting the great majority of all recreation activities associated with water projects embraces the more usual activities, such as for example, swimming, picnicking, boating, and most warm water fishing.

"In view of the fewer alternatives available and the likelihood that higher total costs are generally incurred by those engaged in hunting and fishing activities compared with those engaged in other types of outdoor recreation, it may be anticipated that the monetary unit values applicable to fish and wildlife recreation will ordinarily be larger than those applied to other types of recreation.

"The special class includes activities less often associated with water projects, such as big game hunting and salmon fishing.

"A separate range of values is provided for each class in order that informed judgement may be employed in determining the applicable unit values for each individual project under consideration. Where considered appropriate, departure from the range of values provided is permissible if a full explanation is given."

The simulated prices given in the Principles and Standards are probably too low. Results of studies by a State government Department of Natural Resources have shown that the value of salmon-steelhead fishing is about $4.25 per day assuming $0 value for travel time, and about $11 per day if travel time has a minimal value of about $2.50 per hour (likely too low). The latter figure is much less biased, and both are based upon the travel cost-distance model. One study found the value of trout fishing in another area averaged about $6, with a great amount of variability depending upon many factors.

It is difficult to place a value upon a man-day of activity, but Congressional guidance can be used. Since it is the practice of industry and government to give everyone two weeks vacation with pay and since it is the law that everyone be paid at least $1.60 an hour, and if recreation is valuable to rejuvenate employees, then why not use the legal hourly minimum wage, $1.60, multiply it by 8, and get $12.80/day. Let that be the daily value or the man-day value for outdoor recreation.

If one pays his way into an amusement park, a private recreation facility, park, beach or other recreational area, a reasonable expenditure figure per person could range up to almost $10.00. A realistic figure for more water-oriented recreation areas would gross almost $4.00/day per person.

The individual may value his day in a highly personalized manner often keyed to weather, companions, or success. The minimum range for specialized recreation should be raised to at least $6.00 per day with a maximum of $15.00. In some areas the $15.00 maximum would be very conservative.

The values for a day of specialized recreation (salmon and steelhead fishing or big game hunting) are much too low. The fifteen to twenty dollar value estimated by Butcher, Rettig, and Brown is more realistic and perhaps low. A low rate value for this type of recreation would result in subsidies to the beneficiaries of water resource projects.

There also appears to be a distributional bias in the values in the proposed Principles and Standards. The activities receiving the highest values under the scheme are principally those that "often may involve a large personal expense by the user" (p. 24157). However, there is no valid theoretical rationale for assigning a higher value to activities which may involve equipment or travel costs that prohibit participation of lower income groups.

Fish and wildlife recreation is not the only type of specialized recreation. Wilderness recreation of various types is becoming more important.

Evaluating losses and determining costs.--Recreation benefits and cost estimation do not take into account the role played by substitute recreation areas. If a dam is built in a region having many lakes (whether public or private), but where there is no other source of free-flowing river recreation, two adjustments should be made; the value of a recreation day for flat water activities should be negligible or zero due to the abundance of such facilities (assuming no crowding); and the value of the free-flowing river recreation foregone should reflect the lack of adequate substitutes. It was recommended that an insertion be made in the section on recreation benefits under the National Economic Development account providing that: "No recreation benefits shall be accorded to projects which destroy areas of specialized recreation."

It is most unwise to continue replacing areas of specialized recreation with flatwater recreation areas: First, areas of specialized recreation are rapidly dwindling in number. Second, the demand for specialized recreation areas is growing much more rapidly than the demand for general recreation areas. Third, flatwater recreation areas are becoming quite numerous.

Subjective value judgments of a representative sample of the concerned citizens, possibly through the use of a carefully designed questionnaire, might be useful in determining benefits. For example, "How much would it be worth to you each year if the quality of stream A were improved from its present state (where it supports crappies, bluegills, etc., now) to the point where it would support trout? How much more (or less) would you be willing to pay for your home if public water and related land resource projects were provided in your (county, region, State, etc.)? If these were multiple choice with ranges of values, the results would probably be as accurate as present cost estimates for construction and more realistic than present methods of measuring benefits. The main reason for a suggestion of this type is that there is just no realistic way of comparing monetary and nonmonetary considerations." "Monetary terms" are used throughout the text, but are never adequately defined.

These guidelines are going to be used in evaluating not only the benefits of a project, but also the costs associated with the loss of recreation opportunities due to construction. Therefore, the section should outline these losses and their evaluation. The loss of wilderness recreational value due to a project should be considered as part of the cost of that project. All project studies should include losses to fish and wildlife resources and the losses should be calculated and applied to the cost/benefit ratio.

Reimbursement for fish and wildlife losses should also be dealt with in the Principles and Standards. States should be compensated through their fish and wildlife agency for the value of these losses for more than just one year. When wildlife habitat is inundated and the wildlife is gone, it is gone forever, not just for one year. Reimbursement based simply on the costs to replace the wildlife is tokenism because there is usually no place left for wildlife to go. State fish and wildlife agencies now are asked to repay a portion of the cost of measures to enhance fish populations while substantial wildlife habitat destroyed by inundation or damaged by regulated flows goes uncompensated. At least, a net balance of habitat losses and gains should be provided by the Federal Government before States are asked to cost-share enhancement measures.

The evaluation techniques used for appraising recreation, fish, and wildlife are still highly controversial. A true market approach to evaluation is nonexistent for these functions. The new Principles and Standards should only apply to recreation, fish, and wildlife enhancement evaluation. Using current proposed methods to place values on preserving fish and wildlife resources understates the true value. Hence, language should be included in the proposed Principles and Standards to prohibit placing arbitrary values on existing fish and wildlife that may be adversely affected by a proposed project.

Although the experts are quick to put a price tag on the water skiers, hunters, and fishermen, what about the canoeists, hikers, mushroom hunters, birdwatchers, and hickory nut gatherers who do not spend much money but who genuinely love the land more than many other recreationists. When will the values that they have lost be considered, and what price will be put on their heads in the cost/benefit analysis?

How is each cave lost to a water project evaluated? The environmental impact statement for a new dam readily admits that caves will be flooded but makes no attempt to assign a cost to the loss or to attach any significance to the loss. Similar statements can be made regarding archeological sites. At least two undescribed species of cave arachnids have been found which will be lost when the dam is completed. How are these losses to science evaluated? Certainly a portion of the benefits of a dam should be subtracted for each species threatened or rendered extinct. These wildlife and open space losses should be added to the cost factor of all water projects and they should be accorded the high significance they deserve.

No attempt is made to include the opportunity costs of converting an area from its present use into another use. Since many water resource projects change natural environments in an irreversible manner, the loss of present and potential future users should be taken explicitly into account.

The Principles and Standards show considerable concern for the underuse of resources, but do not sufficiently acknowledge overuse of resources as an important source of environmental degradation.

Greater urban consideration needed. --The recreational aspects of projects should show a greater consideration for urban areas and especially the urban poor who often cannot afford to travel to rural recreation areas. More recreation facilities should be located near cities, in keeping with President Nixon's "Parks to the People" campaign.

The Water Resources Council's consideration of the recreation uses of water projects does not sufficiently take into account the needs of the Nation's urban poor. Due to low income, their desires and needs for recreation cannot simply be disregarded. But this is precisely what has happened in the past and continues to happen. For example, one project has generated extensive reservoir construction. But most of these reservoirs are located a great distance from the people. However, as emphasized in the Water Resources Council's own studies, the greatest need for increased flat-water recreation exists, not in the area of the project, but rather where the people are located. We suggest that in the future there be better adherence to the Council's findings and that recreation benefits be disallowed for reservoirs outside metropolitan areas unless and until the recreation needs of metropolitan areas first have been ameliorated. At the very least, recreation benefits for otherwise inaccessible reservoirs should be allowed only if the project includes provision for public transportation linking the project to one or more significant population centers.

Alternatives for satisfying recreation needs. --More and more Americans are beginning to utilize the recreational resource values of our streams and rivers and to appreciate the wondrous variety of plants, fowl, fish, and animals that thrive in these watercourse areas.

Recreation diversity is a great deal more important than just sheer quantity recreation. There should be rivers for canoeing and other purposes and for just the enjoyment of nature.

Recreational value is often cited as partial justification for building dams and other projects. This claimed value should be placed in proper perspective. For example, a dam is justified on the basis of projected recreation due to fishing benefits, campgrounds, etc. However, these same recreational goals could be obtained by the Government through purchase of access points to the rivers, and the construction of campgrounds, without building a multimillion dollar dam and flooding thousands of acres. The cost for the acquisition of these recreation sites would be trivial compared with the cost of the dam. Therefore, if recreation is the goal it is not reasonable to justify the dam for that reason.

Many of the recreational benefits associated with public projects are "imaginary" and should be rejected. The bike trails, canoe trails, parks, and hiking areas planned in the "Green Belt" are "imaginary" benefits of the proposed reservoir for they could just as well be constructed without the reservoir.

Alternative courses of action such as flood-plain zoning, flood insurance, or the development of the flood plain as an environmental corridor or greenbelt would be far less damaging to the environment and would permanently reduce flood hazards, protect valuable fish and wildlife habitat, and would provide the needed diversity of recreational opportunity in an area. Such alternatives have not been studied or developed by the responsible Federal agency, as required by the National Environmental Policy Act.

Given that motor boating and water skiing are almost the only recreation forms that require a reservoir, a new method of calculating the recreation benefit should be found. A least/cost alternative of buying "X" amount of recreation land along a river and building some swimming pools was suggested. Given the large number of recreation reservoirs, there is an obvious need to provide other forms of recreational settings.

Simple recreation is the type most desired by most people. The most good for the most people should be the criterion with the provision of numerous small, simple facilities rather than fewer larger, elaborate ones.

Water is the most rapidly growing form of recreation. Therefore, development of our beaches on streams, lakes, and oceans, as well as provision of simple boating facilities, is highly desirable. Included in this should be provision for water recreation, including swimming, on water supply lakes.

One decisive Federal regulation could be to require zoning to permit public access by street or road, at least every one-half mile interval, to the water's edge on all tracts contiguous to a lake, river, or ocean, so that recreation might be permitted. The area between low water and high water on rivers, oceans, and most lakes is under the jurisdiction of the Federal Government and access to it should not be denied.

Could project money be best spent by buying a whole river valley for recreation and wildlife rather than by building a dam? What are the costs of flooding out the most fertile valley land (fertile in agriculture, fertile in timber production, fertile in wildlife production)? Would the British approach of regulating parklands which remain in private property be the best approach?

General considerations.--Recreation is viewed as primarily a social process and not an economic process.

Emphasis should be put on land and water recreation which would create the least amount of air and water pollution.

Water projects concerned with recreation benefits should not be based on population projections. If that is allowed, all flowing water will be impounded before it is recognized that the population is actually going to stabilize and all there is left of natural beauty will be destroyed.

Economic studies conducted by one State Legislature have concluded that the tourist dollar is one of the most productive in the economic structure in any community. Research conclusions show that the tourist dollars turn over ten times in a community. The economic advantage of this is immediately apparent. Moreover, fewer municipal services are required for the tourist than for the permanent resident, so the economic gain is maximized.

The proposed Principles and Standards should include a policy statement recognizing the need for a national inventory of rivers, streams, and other natural bodies of water which should remain untrammeled and which should be forbidden to the water planning agencies except for in-stream uses compatible with their natural values. The inventory should include, at a minimum, those bodies of water already institutionalized, together with others which are proposed for such status at the Federal or State level, including those which, although not worthy of institutionalization, do have natural values warranting preservation in whole or part. It was recommended that a paragraph be added to the proposed Principles, under section I, "Purpose and Scope," to designate the Bureau of Outdoor Recreation as the executive agent of the Water Resources Council to accomplish the inventory.

The proposed Principles and Standards, under V B 1 (page 24169) employ an undefined concept of user days for specification of the water and land related recreation opportunities. Later (table 4, page 24178 and on page 24181) a concept of man-days for recreational opportunities is used. However, according to the Recreation Advisory Council Circular No 6, beginning with calendar year 1965, all Federal agencies shall report public recreation use in terms of visitor-days. It is recommended that the Principles and Standards incorporate the clearly defined visitor-day concept and thus replace the unclear man-days and user-days concepts, if only to provide consistency.

Hopefully, in the review process existing cost-share legislation such as P.L. 89-72, the Federal Water Projects Recreation Act, will be reexamined.

6. ISSUES RELATED TO COST SHARING AND ALLOCATION

The cost-sharing and cost-allocation provisions of the Principles and Standards stipulate, among other things, as follows (Pages 24148, 24181, 24183):

> "Reimbursement and cost-sharing policies shall be directed generally to the end that identifiable beneficiaries bear an equitable share of cost commensurate with beneficial effects received in full cognizance of the multiobjectives. Since existing cost-sharing policies are not entirely consistent with the multiobjective approach to planning water and land resources, these policies will be reviewed and needed changes will be recommended."

* * * * *

> "Current reimbursement and cost-sharing policies will be reviewed in their entirety at an early date in light of experience gained from actual application of the new planning principles and standards. . . . Until this comprehensive review is completed, all current reimbursement and cost-sharing policies are considered to be in full force and effect."

* * * * *

> ". . . an allocation of appropriate costs shall be made when an allocation of costs is required for purposes of establishing reimbursement levels, pricing policies, or cost-sharing between the Federal Government and non-Federal public and private interests. All objectives and components of objective shall be generally treated comparably in cost allocation and are entitled to their fair share of the advantages resulting from a multiobjective plan."

Comments received concerned such matters as (a) those people who benefit most from the use of water resource projects should be required to pay a far greater share of the costs of those projects than they have in the past; (b) opposition to the proposition that beneficiaries can so readily be identified (because benefits are widespread) and therefore should not pay and that, if they must pay the cost-sharing formulas it should be in line with local abilities to pay; (c) the lack of clarity and realism in the Principles and Standards and the absence of those specific principles that will guide the sharing of costs between the Federal and State levels of government, and that current cost-sharing policies are not consistent with multiobjective planning, requiring further review to determine what changes are needed, and, finally, (d) cost allocation and coverage is disadvantaged by its complexity and treatment in the Principles and Standards. An elaboration of these issues follows below.

Beneficiaries Should Pay a Greater Share of Project Cost

A total of 960 individuals and organizations that responded thought beneficiaries from water resource projects developments should pay more of the project costs.

Until beneficiaries are asked to pay for their gains, socially optimal control measures over water resource projects may never exist. Thus, in the Principles and Standards beneficiaries are subsidized without employing an effective means by which the latter can express their own judgment of how much they would be willing to pay for flood protection, navigation, or any other subsidy. The Principles and Standards do not enable beneficiaries to compare alternative means which may be available for avoiding flood damage (such as relocating out of the flood plain) or for any other gain. Until beneficiaries are asked to pay for their gains, a socially optimal provision for the services of public works is not possible. Investments will be made in the development of the flood plain with the expectation of ever-mounting public commitments for their protection; marginal agricultural land will be farmed with the subsidy of below-cost irrigation; inland waterways will be used for navigation at a higher cost to society than that of overland transportation by rail. However, the difficulty can be remedied by offering potential beneficiaries a payment scheme for the gains they expect to get, in the form of fees or assessments on their property (in the case of flood protection), or for use of irrigation water or navigation passage. Special assessments for street and sewer improvements are now a part of local government finance, and highway taxes geared to fuel consumption are also a part of Federal finance. Attempts should be made to design payment schemes for at least the commercially significant outputs of water management projects. To a considerable degree, highway user taxes pay the cost of public highways. However, no start has been made in water resource projects. This should be done with maximum effort to bring early implementation, and with an opportunity for the proposed beneficiaries to accept or reject any given public project.

In general, if beneficiaries are not willing to pay the properly imputed price of whatever gain they expect to receive, then this means that they would prefer some other alternative and more efficient means of achieving the same end. It also means that society is wasting resources by spending money for something that is not worth the cost to those for whom it is intended.

It is wrong for the overburdened American taxpayer to be forced to continue subsidizing private interests, and wrong for the direct "beneficiaries" to receive all the benefits without bearing a substantial portion of the costs. A remedy could be a fair and equitable division of costs, 75 percent by local beneficiaries and 25 percent by the Federal Government.

With regard to ecosystems, persons using water and discharging it, should release it into the environment only after it has been processed and meets discharge standards. Clean-up costs should be borne by the persons using the water, not generally by fishermen or taxpayers. Also, State fish and wildlife agencies now repay a portion of the cost to enhance fish populations while wildlife habitat destroyed or damaged by regulated flows goes uncompensated. At a minimum, the Federal Government should provide a net balance of habitat losses and gains before States are asked to cost-share enhancement measures. Costs to provide specialized profit-yielding features of projects should be borne by those receiving project benefits. Investments by the Government should yield broad public benefits, such as maintaining and enhancing ecosystems.

The concern of railroads versus waterways was expressed. The comments indicated that there was concern with the practice of subsidizing waterway carriers and shippers. This was considered economically unsound and unfair to the Nation's general taxpayers who pay for the construction, operation, and maintenance of navigation projects.

The adoption, on the other hand, of adequate waterway user charges would shift the costs of navigation projects from the general taxpayers to waterway carriers and shippers as direct beneficiaries of such projects for private gain. Since much of the pressure for Federally financed navigation projects is generated by special interest groups who benefit from Federally provided facilities, an adequate user charge would reduce pressures for uneconomic projects. Adequate user charges would also discourage the overdesign and early replacement of waterway projects. It would also encourage transportation by the most efficient mode in basic economic terms, and would be consistent with and encourage sound national transportation objectives.

Beneficiaries Should Not Pay More Than Ability

A total of 70 individuals and organizations indicated that beneficiaries should not pay, or at least not pay more than their ability. They stated that the U.S. Government is commissioned to perform its functions in pursuance of constitutionally delegated powers for the general public welfare. Its responsibility is to serve the public interest of American citizens, and not to sell them the output and benefits of their own facilities. If a work of internal improvement is not a public work bestowing its benefits widely, either of itself or as a part of an integrated program, it should not be built. This is not intended to suggest that no part of the cost of certain Federally provided improvements should be borne by local interests. However, the blanket demand for reimbursement by so-called identifiable beneficiaries misconceives the nature of the Federal Government's function. If carried out it will cause termination of many of our ongoing public welfare programs.

Benefits are so widespread and varied that it is impossible to identify the magnitude of the benefits much less those receiving the benefits. Even if identification of benefits and recipients were possible, assessing and collecting would be an insurmountable task. There are many proposals for other uses of Federal tax money such as slum clearance, rebuilding of cities, mass transit systems for the megalopolis, and hundreds of other ideas all of which, if computed on a cost-benefit ratio, would produce far less on the benefit side than many of the critical western water projects.

Organizations propose that beneficiaries pay a greater share of the project's costs; but they do not say how they would propose to have beneficiaries of Federal fish hatcheries, wild rivers, and national parks and recreation areas reimburse the Treasury for these splendid public activities. Will they install toll gates at Federally financed urban parks and charge the float fishermen for ongoing wild rivers systems?

The cost sharing proposal is an axiom that is unallowable in this country. To charge the beneficiary with an equitable share of the cost of a project would be somewhat akin to charging welfare mothers for giving them welfare programs, or to charge a school district a sum of money because they received a grant for a school program. The same effect occurs by levying a tollway tax on a Federally funded interstate highway system. Also, it is not reasonable for local and state activities to bear all operation and maintenance costs.

Finally, cost-sharing should be in line with the State and local ability to pay. Benefits accrue to future generations and it is impossible to determine all benefits.

Clarity and Consistency of Cost Sharing Provisions

Some 47 commented generally that there continues to be so little attention given to repayment and cost sharing in the Principles and Standards. These elements have an indirect effect on the entire process of project formulation and analysis, and are of critical importance to the acceptance and success of the Principles and Standards. The proposed cost allocation procedure would assign costs to external economies, Environmental Quality, Regional Development, and some elements of social well-being. However, the procedure does not indicate to whom these costs may be assigned, or how they might be repaid, or how they might be shared. The Administration and the Congress need to express themselves and make clear that the beneficiaries of the more traditional project functions such as flood control, power, and water supply will not be called upon to bear the burden of the costs resulting from the inclusion of these new project objectives.

Unrealistic "cost-sharing" policies are proposed for public works. The people of city "X" as identifiable beneficiaries might be required to pay for water supply benefits provided by low flow betterment features of upstream dams while the increased flows are passed on downstream to residents of city Y and Z at no cost. Our water resources are national resources to be developed and made available to all of our citizens. They are not to be doled out at so much a gallon to those who have an immediate need for them.

Under present Federal policies, the Federal interest in some project purposes is recognized, and reimbursement of the costs attributable to those purposes is not required of the beneficiaries of other project purposes. If the Federal Government limits its participation to those projects with short-term returns, and excludes participation in long-range projects, then some innovations in cost-sharing principles will be needed to compensate the States for their investments if nonreimbursable components are included in future projects. If the Federal investment component is withheld from multipurpose water projects that do not meet the "less capital intensive ... scaled to meet near-term needs" criteria, who is to pay the costs of those purposes that are clearly in the Federal interest? Requiring a municipal water user to pay the full costs of providing flood control for downstream property owners, of providing fresh water releases from reservoir storage to maintain salinity levels in bays and estuaries, of acquiring land for recreational use, raise debatable questions in equity.

The proposed Principles and Standards fail to give explicit recognition to the fact that cost-sharing policies have been responsible for unwise development of flood plains and for the predominance of ecologically damaging structural solutions to flood problems. The Principles and Standards make no explicit changes in cost-sharing rules but merely indicate that policies on cost sharing and reimbursement "will be reviewed and needed changes recommended." Thus, by not dealing with the relationship between cost sharing and the type of solutions to flood problems, the Federal Government is failing to exercise the leadership essential to insuring economically and ecologically sound solutions to flood problems. Outmoded cost-sharing policies have allowed for almost the whole cost of structural measures like dams to be paid by the Federal Government whereas desirable solutions to flood problems such as zoning, floodproofing, and flood insurance take a back seat because they involve a greater portion of the cost to be paid by the people in the project area. Yet these desirable alternatives to structural measures are less costly to the Nation and less ecologically damaging and are more sound from the standpoint of preventing unwise development in a flood plain.

Language should be inserted in the Principles and Standards advocating that priority be given to floodproofing, zoning, and flood insurance in formulating plans for flood control projects. The Principles and Standards should specifically indicate that dams and other structural measures including channelization are not the preferred solutions. Appropriate cost-sharing policies can insure that wise and ecologically sound solutions to flood problems are pursued. A first step would be to require a 50-50 cost sharing on all structural measures, or alternatively require that the percentage of the local share of the cost be the same for all methods, both structural and nonstructural, in accomplishing the same objective.

Further, the Principles and Standards should not be adopted until cost-sharing determinations are made. The form which cost sharing takes could have a significant influence on the acceptability of the overall proposal to State and local government.

Finally, the comment is made that rules, performance measures, penalties, rewards,and organizational structure are necessary to insure that water resource programs coincide with their original objectives. If local groups are biased by cost-sharing rules to select a project that is beneficial from their standpoint, but not from the Nation's, a loss in national economic welfare results. Flood protection may be provided in many different ways; the least costly technique, from a national standpoint, may in some instances be a system of flood insurance, financed on a sound actuarial basis. Local interests, however, might reject flood insurance in favor of a more expensive solution paid for by others, such as a reservoir, which provides the same protection, since local cost sharing is required for the flood insurance but not for the reservoir. Improper cost-sharing rules may, therefore, induce local interests to press for decisions that are optimal from a local point of view, but inefficient for the Nation. The major problem in cost sharing is to design incentives which will induce local groups to behave in the best interest of society as a whole which, if practiced by all, will be in their own best interest.

If evaluation procedures are to have consistency, the beneficiaries of water resource projects should be charged the full cost of the goods and services provided them, unless either the cost of imposing and collecting such a charge is prohibitive, or an explicit decision to redistribute income is made and it can be demonstrated that the incidence of project benefits is consistent with this decision. The purposes of cost sharing should be to encourage both the efficient use of resources and the proper incidence of project costs. The amount that project beneficiaries pay for a project's output influences efficiency, since the assessment of charges will affect the rate at which project services are used. The absence of charges may induce waste, whereas excessive charges may result in a failure to meet project potentials.

Various methods are available to accomplish the objectives of water resource planning. Presently the calculated percentage local cost-share differs among techniques. There is no guarantee, then, that the "least-cost" method, in terms of resources used, will be favored by local beneficiaries. To eliminate this type of cost sharing bias, the percentage should be the same for all techniques, whether they be structural or nonstructural alternatives that are used to accomplish the same objective. This rule should not only be followed within a given agency, but also between agencies.

Cost sharing can affect the choice of a technique which is desired to accomplish a particular objective; it can also influence the overall program objectives as well. Local beneficiaries favor inflated program objectives if they are not held accountable for the costs that they impose. To eliminate this type of cost sharing bias, local beneficiaries should be required to share the costs of a project in proportion to their incremental benefits.

Cost Allocation and Non-Federal Reimbursement for Flow Augmentation

A number of those commenting (17) discussed cost allocation and non-Federal reimbursement for flow augmentation. They stated that the proposed cost allocation process appears to have the disadvantage of being extremely complex, but noted that procedures provide for allocating costs to environmental quality enhancement and regional development.

The treatment of cost allocation (Section VII, A, 1) leaves a false impression of the importance of cost allocation in the economic and financial analysis of proposed resource development projects. Cost allocation is not necessarily cast in the role of being used for establishing reimbursement levels, pricing policies, or cost sharing. Charges for project services and cost sharing are, and can be, established in a number of different ways, of which project costs is only one way of approaching the problem. Other ways include alternative costs, incremental costs, value of services, market studies, etc. The subject of cost allocation should therefore be only one of the approaches to be considered in establishment of rates and cost sharing.

Finally, the proposed Principles and Standards provide on page 24183:

> "Cost-sharing for enhancement of water quality.... The total investment costs of the plan allocated to the environmental quality objective for such streamflow regulation to meet water quality standards shall be borne equally by the Federal Government and non-Federal entities. The total operation, maintenance, and replacement costs of the plan allocated to the environmental quality objective for this purpose shall be a non-Federal responsibility."

Present Congressional policy regarding cost sharing (reimbursement by non-Federal interests) on reservoir projects is more or less consistent such as between flood control and flow augmentation in the interest of water quality i.e., in neither case are costs reimbursable when benefits are widespread. If anything, the beneficiaries of flood control projects are more easily identified than the beneficiaries of flow augmentation; this is especially true when the latter relates to problems associated with diffused pollution sources. However, the section on cost-sharing for water quality (page 24183) appears to contradict existing Congressional policy regarding reimbursement for flow augmentation purposes. There is apparently no similar treatment of the flood control problem.

The requirement for 50/50 sharing for water quality storage should be deleted from the Principles and Standards. The additional burden on the State governments and the complications resulting will delay projects. Thus, a continuation of the present system is in the interest of the earliest possible upgrading of water quality in the Nation's streams.

7. DRAFT ENVIRONMENTAL STATEMENT DOES NOT MEET REQUIREMENTS OF NATIONAL ENVIRONMENTAL POLICY ACT OF 1969

The Environmental Statement appears on pages 24191 to 24194. The title of the Statement did not appear in the original printing. However, a correction was printed and given wide distribution. Fourteen of the public comments stated that the draft Environmental Statement was inadequate.

The proposed Principles and Standards included what is reported to be a separate draft Environmental Statement. The statement presented is not an Environmental Statement. It is a summary, and a good one, of the Principles and Standards. However, it does not follow the format for Environmental Statements.

There is no concise statement of the impact of the Principles and Standards on the total environment. No mention is made of probable adverse environmental effects which cannot be avoided.

The draft Environmental Impact Statement (page 24193) claims that "The proposed Principles and Standards conform fully with the intent and the spirit of the National Environmental Policy Act of 1969 by providing for full and systematic evaluation and display of environmental effects for all alternative plans." The accuracy of this claim is questionable. Procedural provisions of Section 102 of the National Environmental Policy Act are incorporated in the Principles and Standards but, unlike the Principles and Standards, the National Environmental Policy Act explicitly rules our avoidable damage to the environment. The national environmental policy, according to Section 102 of the National Environmental Policy Act, is to promote efforts which will prevent or eliminate damage to the environment. It is the responsibility of the Federal Government, in Section 101 (b) of the National Environmental Policy Act, is to use all possible means to improve and coordinate Federal plans to attain the widest range of beneficial uses of the environment "without degradation."

Alternatives to the proposed Principles and Standards are not presented. Nothing is said about how the Principles and Standards would affect the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity. There is no discussion at all of the effect of alternative Principles and Standards which might have been proposed.

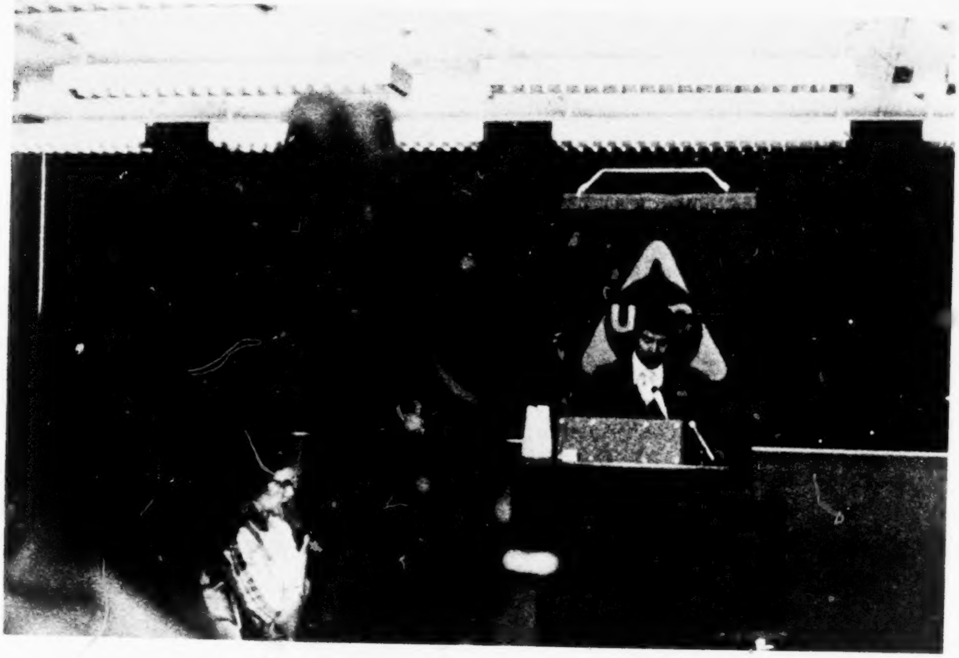
The purported Environmental Impact Statement does not explain the irreversible and irretrievable commitments of resources from the implementation of the Principles and Standards. The impact of raising the discount rate is not discussed in terms of impact on projects which will not move ahead. The impact on the local areas and the local regions if project planning and construction ceases is not mentioned. These are the types of information which should be discussed in an Environmental Statement.

The Environmental Impact Statement is inadequate. It is deficient with regard to the actual impact the promulgation of the Principles and Standards will have on the human and physical environment. This effect will be felt through the construction or non-construction method of operation, management of projects, protected areas, and so on.

In the introduction, it was stated that the new methodology has been tested in 19 field studies. The results of the studies should be given, along with answers to the following questions: (1) Will the new guidelines make it more difficult or easier to authorize projects? A list of projects should be provided, along with an analysis of them using old and new guidelines. (2) An indication of how management plans such as wild and scenic river protection, wilderness preservation, and coastal protection would be affected by the new guidelines. (3) There should be a careful examination of some of the most significant presently unconstructed or unauthorized projects in the United States.

The shallow Environment Impact Statement totally fails to meet the requirements of the National Environmental Policy Act of 1969. While those of us in the field--the Federal water development agencies and their local sponsors--are spending millions of dollars to comply faithfully and fully with the provisions of this Act, in Washington there is published an Environmental Impact Statement, less than four pages long, on a major Federal action that, if implemented, will drastically change the Federal Government's involvement in water resource development --a change that will abruptly alter and affect the quality of human environment throughout America for generations to come. This lack of concern for the letter and spirit of this statute is a terrible example for the rest of the Nation and could possibly be challenged in the courts.

An adequate Environmental Statement covering the practical impact of the adoption of Principles and Standards should be prepared and furnished to the public for consideration before the Water Resources Council makes any recommendations on the Principles and Standards.



San Francisco Public Hearing, March 13, 1972

APPENDIX I

TABULATION OF COMMENTS BY ISSUE AND STATE

APPENDIX I

The Inter-departmental Work Group identified 23 issues in the public record which were in response to the Principles and Standards for planning water and land resources. The frequency of each issue was recorded by State and presented in the table in this appendix. The total number of people or organizations commenting from each State is displayed in the far right-hand column. The total number of people or organizations commenting on each issue is recorded at the bottom of the table under each respective issue.

General definitions to the issue headings across the top of the table follow the table.

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State	Discount Rate			Retroactive Application of P&S				Environmental Quality Objective		Regional Development Obj			More Public Participation	Cost Sharing and Allocation			
	Under 7 Percent	7 Percent	Over 7 Percent	All Projects Immediately	As Proposed	Extend Grace Period	Oppose Retro Coverage	Top Priority	Very Important	Drop	Retain	Who Decides ?		Beneficiaries		Clarify Provisions in Principles and Standards	Cost Non- Reimb for Augm
														Pay More	Pay Less		
Alabama	2		18	12				12	2	9	1		16	12			
Alaska			1					1		1			1	1			
Arizona	3	1	17	15		1		14		12	3		8	8		1	
Arkansas	11		60	49		6		51	6	43	7	2	44	43		1	
California	82	14	95	73		12		90	14	41	15	3	63	23	4	2	
Colorado	12	7	30	31		11		29	6	15	4	1	20	14		2	
Connecticut	2	2	19	16				22	1	14	3		17	15	1		
Delaware			3	2				2		1			3	2			
District of Columbia	5	1	11	6		3		11		7	3		8	5			
Florida	17	5	35	33		5		29	3	22	6		22	18			
Georgia	3	1	17	17		2		18	2	10	2		17	9	1		
Hawaii	1		1	1						1			1				
Idaho	6	4	26	22	1	2		21	2	15	4		19	14			
Illinois	47	9	179	148	2	7	1	131	13	115	11		144	85	7	1	
Indiana	85	3	73	69		6	8	64	3	52	43	8	54	56	13	14	
Iowa	2		8	7			1	8	1	5	1		4	7		1	
Kansas	72		8	7		22	4	6	3	6	12	2	4	5	2	1	
Kentucky	6		14	11		8		10	1	9	5		10	8	4		
Louisiana	29		16	16		10	1	12		11	12	1	11	10	4	1	
Maine		1	2	3				2	1	2			2	2			
Maryland			23	21				21	3	14	1		14	14			
Massachusetts	2		26	25				22	2	17	2	1	23	19			
Michigan	19	4	52	51		6	5	54	7	33	16		54	44	8	6	
Minnesota	1	1	13	7				8	2	6			9	7			
Mississippi	5		31	32			1	28	1	26	2		28	20			
Missouri	59	21	68	58	1	9	3	57	5	37	26		52	40	2	2	
Montana	4		16	11		1		15	2	9	1		10	10			
Nebraska	9		7	9		3		7		6	5		5	5	1		
Nevada	2	3	6	7		2		5	2	5	2	1	6	4	1		
New Hampshire			1	1									1	1			
New Jersey		2	29	26			1	26		16			24	13			
New Mexico	1	1	9	7		1		10	2	7	1		9	7			
New York	1	2	51	46				48	6	29	2		33	30		1	
North Carolina	5	1	55	27				28	3	12	2		47	18			
North Dakota	44	7	172	116		3	1	115	5	109	3		168	110			
Ohio	27	4	75	62		16		72	9	41	21	2	63	48	11	3	
Oklahoma	627	1	93	68		17	3	71	13	46	17	2	68	47	1		
Oregon	8	1	34	26		2		29	1	20	5	1	21	25		1	
Pennsylvania	3		32	29		1		49	1	22	4	1	53	24	1	1	
Rhode Island																	
South Carolina	1		3	2		1		2	1	3			3	3			
South Dakota	23	1	19	15		1		13	3	14	2	1	10	14	1	5	
Tennessee	6	3	37	34		2		28	4	17	3	1	21	20	1		
Texas	157	4	80	70		90	16	70	2	43	42	4	53	53	2	1	
Utah	5	1	6	4		2		6		4	3		4	2			
Vermont			1	1				1		1			1	1			
Virginia		2	11	9				12	6	8			9	9			
Washington	14	11	36	19		2	1	23	4	11	5		19	13			
West Virginia	1		3	2				2	1	1	1		2	3			
Wisconsin	1	1	17	14			1	19		8	2		12	7	2		
Wyoming	2		6	3		1		6		3	2	1	3	4			
National & Intl	19	2	22	20	1	14		13	5	18	14	3	18	8	3	3	
Freq Total by Issue	1431	121	1667	1360	5	269	47	1393	148	977	316	35	1311	960	70	47	

nd Allocation		Consider Feasible Alternatives			Restore Social Well-Being Objective	Program Coverage and Coordination			Output Characteristics and Bene		Authority to Establish P&S		Implen ation of
ify sions ciples ndards	Cost Allocation and Non-Federal Reimbursement for Flow Augmentation	General	Flood Plain Zoning	Recycle Water		Coverage of Agency Projects	Separate Planning from Construction	Agency Coordination	Recre - ation	Other Benefits	Legislative	Executive	Oppose
					1	2	1			1			
			1	2	1								
		1	1		4	4	4				1		
	2	2	1	3	16	12	2	1	3		3		1
		1	1	2	5	1	1			4			
		1	2		1								
			1	1		1		1					
		1		1	3	3			1	1			
		1		4	3	3			2	1	2		
					2				1				
					1								
				2	3	1	1			1	4		
			1	1085	5	2	4	1	1	3	2		
	2	1	1	1	20	3		3		1	3		1
					1					2			
			1	1	1						8		
					1		1				1	1	2
					4					2	4		1
				1						1			
				1	4	1							
					4	2			1				
					1	2					1	1	
		4	5		8	3	3	1			3		2
					2	3				1			
					4		1						
					1								
			1	1			4						
					1					1			
				4	3	2		1		1			
	1	1		1	2	1			1	1			
			1			1	3				1		
		2	6	9	3		1		1	2	2		
	1	2	1		6	2	1			3	6		
		2	2	1	3	1				1	1		
				1	4		1		1				
			1		2	2	1	1		1			
	1	2		2	1		1		1		2		1
	3		2	2	7	4	2	3		2	1		4
	1				4			1			1		1
	1		1	1							1		1
					3	1	2		1		2		1
						1							
		1			1	1		1		1			
			1		2	1							
	4	2	3	1	13	11	4	1	2	5	1		
	17	24	34	1127	151	76	38	15	16	36	50	2	15

TABULATION OF COMMENTS BY ISSUE AND STATE

Output teristics and e	Authority to Establish P&S		Implementation of P&S		Criteria for Formulating and Evaluating Plans		Environmental Statement Inadequate	Recommendations for New Planning Objectives	Frequency Total by State	
Other Benefits	Legislative	Executive	Oppose	Defer	OBERS Projections Inadequate	Benefit - Cost Ratio				
1					1				Alabama	90
									Alaska	5
						1			Arizona	88
	1						1		Arkansas	339
	3		1	13		1	2		California	593
4				1		1		1	Colorado	200
								1	Connecticut	117
									Delaware	17
1								1	District of Columbia	71
1	2						1		Florida	212
									Georgia	102
									Hawaii	6
1	4					3			Idaho	152
3	2				1		1	1	Illinois	2,007
1	3		1			2		1	Indiana	590
2							1		Iowa	49
	8					1			Kansas	166
	1	1	2						Kentucky	92
2	4		1						Louisiana	145
									Maine	15
1									Maryland	113
					1				Massachusetts	146
								1	Michigan	367
									Minnesota	54
	1	1							Mississippi	179
	3		2	1	1	2			Missouri	473
1					1				Montana	86
									Nebraska	62
									Nevada	47
									New Hampshire	4
									New Jersey	143
1									New Mexico	57
1									New York	261
1									North Carolina	206
	1								North Dakota	859
2	2				1				Ohio	486
3	6			2				1	Oklahoma	1,099
1	1			1	2			1	Oregon	189
									Pennsylvania	228
									Rhode Island	0
									South Carolina	19
1									South Dakota	130
	2		1	1		1			Tennessee	190
2	1		4			3	8		Texas	728
	1		1		1				Utah	46
									Vermont	6
	1		1						Virginia	71
	2		1						Washington	168
									West Virginia	17
1									Wisconsin	89
									Wyoming	35
5	1				4	2		2	Natl & Intl	218
36	50	2	15	20	13	17	14	10	Grand Total	11,832

DEFINITIONS FOR APPENDIX I

DISCOUNT RATE

	Rate at which projects should be discounted in plan formulation and evaluation.
Under 7 Percent:	Those that wanted a lower discount rate.
7 Percent:	As proposed in the Principles and Standards.
Over 7 Percent:	Those that wanted a higher discount rate.

RETROACTIVE APPLICATION OF THE PRINCIPLES AND STANDARDS

All Projects Immediately:	All projects should be subject to all provisions of the Principles and Standards regardless of when they were authorized or funded.
As Proposed:	As proposed in the Principles and Standards.
Extend Grace Period:	Five-year review provision is too short. The grace period for application of the Principles and Standards to authorized projects should be extended to at least 10 years or more.
Oppose Retroactive Coverage:	Presently authorized projects should not be subjected to or reviewed under the Principles and Standards.

ENVIRONMENTAL QUALITY OBJECTIVE

Top Priority:	Environmental Quality Objective should be given top priority in natural resource planning and all other planning objectives should be subordinate thereto.

Very Important:	Environmental Quality Objective is a very important planning objective.

REGIONAL DEVELOPMENT OBJECTIVE

Drop:	Regional Development should be eliminated as a planning objective.
Retain:	Regional Development should be restored as a full planning objective.
Who Decides?:	The Principles and Standards state that the Regional Development objective is to be considered "when directed". Who directs??

MORE PUBLIC PARTICIPATION

	Government must involve the public in planning at all levels in water development projects.

COST SHARING AND ALLOCATION

Beneficiaries:	
Pay More:	Those who benefit from projects should pay a greater share of project costs.
Pay Less:	Those who benefit from projects should not pay or only pay according to their ability.
Clarify Provisions in the Principles and Standards:	The cost allocation and cost sharing provisions are unclear and unrealistic.

Cost Allocation and Non-Federal Reimbursement for Flow Augmentation: Question workability of cost allocation method and oppose non-Federal reimbursement for flow augmentation to enhance Environmental Quality objective.

CONSIDER FEASIBLE ALTERNATIVES

General: All alternatives should be fully considered in project planning.

Flood Plain Zoning: Nonstructural flood plain zoning should be used for flood control in lieu of structural flood control.

Recycle Water: Consider implementation of recycling technology in lieu of structural measures and direct releases.

RESTORE SOCIAL WELL-BEING OBJECTIVE

Social well-being should be restored to a full planning objective.

PROGRAM COVERAGE AND COORDINATION

Coverage of Agency Projects: Which agencies and/or programs and projects should be added to or exempted from coverage of the Principles and Standards.

Separate Planning from Construction: One agency should not have the authority to plan and also have the authority to construct a project.

Agency Coordination: Problems with Federal, regional, State, and local group coordination and planning responsibilities and authorities.

OUTPUT CHARACTERISTICS AND BENEFICIARIES

Recreation:	Need to improve measurement of value to users and distribution of benefits.
Other Benefits:	Irrigation, flood control, economic benefits, navigation benefits versus other forms of transportation.

AUTHORITY TO ESTABLISH PRINCIPLES AND STANDARDS

Legislative Versus Executive Authority:	Does Congress or the executive branch have authority to establish Principles and Standards.

IMPLEMENTATION OF PRINCIPLES AND STANDARDS

Oppose:	Do not implement the Principles and Standards. Go back to Senate Document 97 or the Task Force Report.
Defer:	Wait until Congressional hearings are held.

CRITERIA FOR FORMULATING AND EVALUATING PLANS

OBERS Projections Inadequate:	Demographic and economic pattern projections are inaccurate.
Benefit/Cost Ratio:	Benefit/cost ratio should be reassessed as a criterion and not used exclusively for water development projects.

DRAFT ENVIRONMENTAL STATEMENT INADEQUATE

	Definition as described in heading.

RECOMMENDATIONS FOR NEW PLANNING OBJECTIVES

Definition as described in heading.

FREQUENCY TOTAL BY STATE

Definition as described in heading.

APPENDIX II

INDEX TO COMMENTS IN THE PUBLIC RECORD

APPENDIX II

Elected Officials

- U. S. Senators
- U. S. Representatives
- Governors
- State Legislators
- Mayors

Organizations

- National (with State and local affiliates)
- State-wide organizations
- Chambers of Commerce
- Other organizations

Individuals

Requested Additional Hearings *

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* Over 500 people requested that the Water Resources Council hold additional hearings. Most of these 500 commented on the proposed Principles and Standards and are included in the general Index. This is a listing of those who simply requested additional hearings early in the public review period. Later several transmitted oral or written statements to the Council.

United States Senators

Allen, James B.	(4930-46)	Ala.
Allott, Gordon	(5701 4)	Colo.
Anderson, Clinton P.	(5701-4)	N. Mex.
Beall, J. Glenn Jr.	(4947)	Maryland
Bellmon, Henry L.	(DC I 10-19)	Okla.
Bentsen, Lloyd	(4948-51)	Texas
Bible, Alan	(4952-3)	Nevada
Brock, Bill	(4963) (5746)	Tenn.
Brooke, Edward W.	(5823)	Mass.
Buckley, James L.	(4988)	N. J.
Chiles, Lawton M.	(4976-5541)	Fla.
Cook, Marlow W.	(4982)	Ky.
Cooper, John Sherman	(4984)	"
Dole, Bob	(4991-2)	Kans.
Dominick, Peter H.	(222-4)	Colo.
Ellender, Allen J.	(4999-5000) (5407)	La.
Fong, Hiram L.	(5068)	Hawaii
Fulbright, J. W.	(5069)	Ark.
Gambrell, David H.	(5748)	Ga.
Griffin, Robert P.	(5751-2)	Mich.
Gurney, Edward J.	(5070)	Fla.

Hansen, Clifford P.	(5071-5)	Wyo.
Harris, Fred R.	(5827)	Okla.
Hart, Philip A.	(5749)	Mich.
Hatfield, Mark O.	(5081-7)	Oreg.
Jackson, Henry M.	(5101-4)	Wash.
Jordan, B. Everett	(5761-2)	N. C.
Long, Russell B.	(4999-5000)	La.
McClellan, John L.	(5122)	Ark.
McGovern, George	(5124-6)	S. Dak.
Magnuson, Warren	(5828)	Wash.
Mansfield, Mike	(5129)	Mont.
Moss, Frank E.	(5134-5)	Utah
Pastore, John O.	(5141)	R. I.
Pearson, James B.	(5146-52)	Kans.
Percy, Charles H.	(5159-61) (5692)	Ill.
Proxmire, William	(5170-1)	Wisc.
Saxbe, William B.	(5830)	Ohio
Schweiker, Richard S.	(5774)	Pa.
Spong, William B. Jr.	(5229)	Va.
Stennis, John C.	(5231)	Miss.
Taft, Robert Jr.	(5477)	Ohio
Talmadge, Herman E.	(5831)	Ga.
Tunney, John V.	(5479-80, 5802)	Calif.
Young, Milton R.	(5271-2)	N. Dak.

United States Representatives

Abernethy, Thomas G.	(5715)	1st.	Miss.
Abourezk, James	(5392-3)	2nd	S. Dak.
Albert, Carl	(966-7)	3rd	Okla.
Alexander, Bill	(4928)	1st.	Ark.
Andrews, George	(5394)	3rd	Ala.
Belcher, Page	(5821)	1st.	Okla.
Bennett, Charles	(968)	3rd	Fla.
	(5475-6, 5728)		
Blackburn, Ben B.	(DC I 56-62)	4th	Ga.
Blanton, Ray	(4954)	7th	Tex.
Boggs, Hale	(5822)	2nd	La.
Bolling, Richard	(4958-9)	5th	Mo.
Brinkley, Jack	(5397)	3rd	Ga.
Brooks, Jack	(5517)	9th	Tex.
Brotzman, Donald G.	(5747)	2nd	Colo.
Brown, Clarence J.	(4967)	7th	Ohio
Burke, J. Herbert	(5475-6)	10th	Fla.
Caffery, Patrick T.	(DC II 4)	3rd	La.
Camp, John N. Happy	(4968)	6th	Okla.
Chamberlain, Charles E.	(5525)	6th	Mich.
Chappell, Bill	(4974-5)	4th	Fla.
	(5475-6)		
Clancy, Donald D.	(4977-8)	2nd	Ohio
Clark, Frank M.	(5824)	25th	Pa.

Dellenback, John R.	(DC II 77-86)	4th	Oreg.
Denholm, Frank E.	(4985)	1st	S. Dak.
	(5493)		
Dowdy, John	(547-69)	2nd	Tex.
Dupont, Pierre S.	(DC II 87-94)	At Lge.	Del.
Edmondson, Ed	(DC III 200-203)	2nd	Okla.
Erlenborn, John N.	(5825)	14th	Ill.
Evans, Frank E.	(5408)	3rd	Colo.
Fascell, Dante B.	(5475-6)	12th	Fla.
Frey, Louis Jr.	(5475-6)	5th	Fla.
Fuqua, Don	(5475-6)	2nd	"
Galifianakis, Nick	(5826)	4th	N. C.
Gibbons, Sam	(5475-6)	6th	Fla.
Griffin, Charles H.	(5805-8)	3rd	Miss.
Haley, James A.	(5475-6)	7th	Fla.
Hall, Durward G.	(5754)	7th	Mo.
Hamilton, Lee H.	(5413)	9th	Ind.
Harsha, William H.	(5076)	6th	Ohio
Harvey, James	(5755)	8th	Mich.
	(5757)		
Herbert, F. Edward	(5418, 5628)	1st	La.
Hillis, Elwood H.	(5419)	5th	Ind.

United States Representatives

Hungate, William L.	(5421)	9th	Mo.
Jacobs, Andrew	(5760)	11th	Ind.
Jarman, John	(5105)	5th	Okla.
Johnson, Harold T.	(5315-21)	2nd	Calif.
Jones, Ed	(5106)	8th	Tenn.
Jones, Walter B.	(DC I 43-46)	1st	N. Car.
Kuykendall, Dan	(5112)	9th	Tenn.
Lennon, Alton	(DC I 206-208)	7th	S. Car.
Long, Speedy O.	(5766-8)	8th	La.
McCormack, Mike	(5123)	4th	Wash.
Mahon, George H.	(5127-8)	19th	Tex.
Mathis, Dawson	(5453)	2nd	Ga.
Mazzoli, Romano L.	(5131)	3rd	Ky.
Meeds, Lloyd	(5132)	2nd	Wash.
Miller, Clarence E.	(5133)	10th	Ohio
Mills, Wilbur D.	(5459-63)	2nd	Ark.
Minshall William E.	(5829)	23rd	Ohio
Myers John	(5136-9)	7th	Ind.
Pepper, Claude D.	(5476-6)	11th	Fla.
Pettis, Jerry L.	(5162-3)	33rd	Calif.
Price, Bob	(5771)	18th	Tex.
Pryor, David	(5172)	4th	Ark.

Purcell, Graham	(5173)	1st	Tex.
Randall, William J.	(5174)	4th	Mo.
Rarick, John R.	(5496, (5773)	5th	La.
Rogers, Paul G.	(5472)	9th	Fla.
	(5475-6)	9th	"
Roy, William R.	(5175)	2nd	Kans.
Sebelius, Keith G.	(5355-8)	1st	"
Shriver, Garner E.	(5224-5)	4th	Kans.
Sikes, Bob	(5473-74-75-6)	1st	Fla.
Stanton, William	(5799)	11th	Ohio
Steed, Tom	(5230)	4th	Okla.
Stubblefield, Frank A.	(5233)	1st	Ky.
Talcott, Burt L.	(5801)	12th	Calif.
Thompson, Fletcher	(5478)	5th	Ga.
Thone, Charles	(5238-40)	1st	Nebr.
Tiernan, Robert O.	(5241)	2nd	R. I.
Udall, Morris K.	(5803)	2nd	Ariz.
Ullman, Al.	(5243-4)	2nd	Oreg.
Waggonner, Joe D. Jr.	(5245-6)	4th	La.
Waldie, Jerome R.	(DC I 20-26)	14th	Calif.
Winn, Larry Jr.	(5251-2)	3rd	Kans.
Young, C. W. Bill	(5475-76)	8th	Fla.
Zion, Roger H.	(5273-4)	8th	Ind.

Governors

Anderson, Forrest H. Represented by W. A. Groff	(SF I 5-11)	Montana
Evans, Daniel J.	(5559-62)	Wash.
Exon, J. James	(4329)	Neb.
Guy, William L.	(DC I 47-55) (179-80, 4330)	N. Dak.
Hall, David Represented by F. Nelson	(SL 103-13)	Okla.
Hathaway, Stanley K. Represented by Tom Barker	(DC I 89-97) (4332)	Wyo.
Hearns, Warren E. Represented by Cliff Sommers	(SL 114-9)	Missouri

Kneip, Richard F.	(4319-32) (DC I 43-46) (2733)	South Dakota
Love, John Represented by F. L. Sparks	(DC I 76-88)	Colorado
McCall, Tom	(SF II 52-62)	Oregon
O'Callaghan, Mike	(5676-91)	Nevada
Smith, Preston Represented by W. E. Tinsley	(DC I 63-75)	Texas
Haydon, John M. Represented by D. F. Graf	(4255-56)	American Samoa

State Legislators

Allen, Ben	(1492)	Arkansas
Carter, Tom M.	(2912-16)	Missouri
Christy, Don	(2300-3)	Kansas
Clayton, Bill	(DC I 114-122)	Texas
Dahl, John L.	(2138)	Oklahoma
Dougherty, William	(171-2)	South Dak.
Faunato, W. C.	(2193)	Oklahoma
Guess, Sam C.	(SF I 7-23)	Washington
Junkin, John R.	(5832)	Mississippi
Kennedy, Billy	(2158)	Oklahoma
Lane, Jim E.	(3482)	"
Mauldin, Hugh	(2185)	Oklahoma
Miller,George A.	(1320)	Oklahoma
Monore, Warren L.	(1427-30)	Nevada
Murphy, Robert M.	(2174)	Oklahoma
Noble, Dan D.	(3115-6)	Colorado
Odom, V. H.	(2638)	Oklahoma
Osheim, Donald	(171-2)	South Dak.
Ramond, Luird M.	(2181)	Oklahoma
Roniger, Pascal A.	(2272)	Kansas
Ruland, Albert C.	(4522-3)	Colorado
Strawig, Calvin A.	(5428)	Kansas
Williamson, B.	(2198)	Oklahoma

Mayors

Albertsen, E. L.	(4130)	S Sioux City, Nebraska	Murff, W. D.	(3958)	Ennis, Tex.
Asmundson, Vigfus A.	(636)	Davis, Calif.	Olson, R. W.	(3521)	Pembina Cnty, North Dak.
Colwell, Joe W.	(4210)	Grand Pra., Tx.	Pedigo, Joe	(3522)	Livingston, Tex.
Cougill, Max	(SL 427-28)	Charleston, Ill.	Phipps, Morgan	(SL 429-30)	Mattoon, Ill.
			Pulliam, J. R.	(1625)	Lawrence, Kas.
Daniels, Paul C.	(2373)	Richland H. Tex.	Stoval, R. M.	(DC I 108-113)	Fort Wth., Tex.
DeWhirst, Edwin M.	(2227)	Merced, Calif.			
Easton, Wilmer	(SL 431-2)	Greenup, Ill.	Tanzler, G. Jr.	(799-801) (969-971)	Jacksonville, Florida
Eaton, Ray	(885)	Ellis, Kansas			
Holasek, Jos. F.	(1666-7)	West, Texas	Walker, M. I.	(2594-5)	Huntsville, Tex.
Magnuson, H. R.	(1541)	Grand F., N. Dak.	Willis, Ted C.	(4628-9)	Fresno, Calif.
Mayor of Montrose	(5275-80)	Montrose, Colo.	Wise, Wes	(DC I 98-107)	Dallas, Tex.
McClellan, Jimmy	(3907)	Baytown, Tex.	Wasinger, F. A.	(SL 119, 386)	Hays, Kans.

National Organizations

American Association of Port Auth.	Paul A. Amundsen	(3310-20)	Washington, D. C.
American Association of Univ. Women	Carolyn Vestal	(5729-43) (SL)	St. Louis, Missouri
" " " " "	Donald Fairclough	(2839-40)	Nevada City, Calif.
American Canoe Association	Philip J. Evans	(3387-8)	Fort Worth, Texas
American Concrete Pipe Association	Richard E. Barnes	(2919-22)	Arlington, Virginia
American Institute of Merchant Shipp.	O. Lincoln Cone	(DC III 119-29)	Washington, D. C.
American Public Power Association	Alex Radin	(3990-2)	Washington, D. C.
American Society of Civil Engineers	Herbert D. Vogel	(DC III 47-52)	" "
American Water Works Assoc.	Charles A. Black	(DC III 185-92)	Gainesville, Florida
American Waterways Oper., Inc.	Braxton B. Carr	(3625-9)	Washington, D. C.
Association of American Railroads	Harry J. Breithaupt, Jr.	(3721-44)	" "
Associated General Contractors of Am.	William E. Dunn	(DC III 135-41)	" "
Conservation Foundation	Sydney Howe	(5309-13)	" "
Environmental Action	Peter Harnik	(DC III 130-34)	" "
Environmental Defense Fund	Paul Roberts	(DC II 251-56)	E. Setauket, New York
" " "	Leo M. Eisel	(DC II 257-71)	" "
" " "	Gerald H. Merel	(SL II 237-65)	Berkeley, California
Environmental Law Institute	Pamela T. Mountain,	(DC III 171-84)	Washington, D. C.
Environmental Policy Center	Brent Blackwelder	(4172) (DC II 21-43)	" "

National Organizations

Federation of American Scientists	Jeremy J. Stone	(3502-3)	Washington, D. C.
" " " "	Smith Freeman	(3497-3501)	Princeton, New Jersey
Federation of Fly Fishermen	Gordon W. Young	(5481)	Seattle, Washington
Friends of the Earth	Geo Alderson	(DC III 331-5)	Washington, D. C.
Garden Club of America	A. Douglass Hall	(2437-8)	New York, N. Y.
Garden Clubs of New York State	Gordon V. Bond	(1068)	Fayetteville, N. Y.
Izaak Walton League of America	Raymond C. Hubley, Jr.	(1)	Arlington, Virginia
" " " " "	Ted Pankowski	(DC II 109-20)	" "
" " " " "	Thomas Dustin	(254-5, 4819-25)	Huntertown, Indiana
" " " " "	Mr. & Mrs. Garrett	(1307-8)	Naples, Florida
Izaak Walton League (Griffith)	Edward C. Reynolds	(4787)	Griffith, Indiana
" " "	Charles S. Collins	(SF II 203-6)	Rosenburg, Oregon
Izaak Walton League of Am., Inc.	Ralph Boyd	(2295-6)	Stillwater, Oklahoma
League of Women Voters	Verda Horne	(4294-5)	Fairhope, Alabama
" " " " Inter-Lea. Com.	Bernard H. Flood	(5295-300)	Lenox, Massachusetts
" " " " of Ohio	Rodger Mitchell	(3948-50)	Columbus, Ohio
" " " "	Velma L. Nichenko	(1257)	Portland, Oregon
East Multnomah Cnty League of Womens Voters Water Chairman	" "	(5140)	" "
League of Women Voters	Joy Buersmeyer	(2897-8)	Boise, Indiana
" " " "	Donald Coee	(2897-8)	" "
" " " "	D. G. Sharp	(5363-4)	Chapel Hill, N. C.
" " " "	Leon Barron	(4162)	Boston, Mass.
" " " "	Howard T. Moore	(3513-4A)	Chardon, Ohio

National Organizations

League of Wom. Voters, Env. Quality	Robert Arrington	(2911)	Ramer, Alabama
" " " " of Riverdale	Robert Graham	(2034)	Dolton, Illinois
" " " " of Toledo	William S. Eberly	(2821-4)	Toledo, Ohio
" " " " " "	June M. Brown	"	" "
" " " " " Tullahoma	Charles E. Ellis	(2236-7)	Tullahoma, Tenn.
National Asso. for the Advancement of Colored People	Leonard H. Carter	(4194-203)	New York, N. Y.
" " " " "	J. Anthony Klein	(SF II 271-4)	San Francisco, Calif.
National Audubon Society	Robert K. Davis	(DC II 229-36)	Washington, D. C.
" " "	Roland C. Clement	(5287-90)	New York, N. Y.
Florida Audubon Society	Hal Scott	(707-8)	Maitland, Florida
Illinois " "		(5425)	Downers Grove, Ill.
Mass. " "	James D. Lazell, Jr.	(3483)	Lincoln, Mass.
Aiken Audubon Society	Susan H. Reese	(460)	Colorado Springs, Colo.
" " "	Kenneth Turner Blackshaw	(464)	" " "
Arkansas Valley Audubon Society	Michael W. Rapp	(503)	Conway, Arkansas
Atlanta Audubon Society	Carlton F. Neville	(904)	Marietta, Georgia
Audubon Society of Kalamazoo	Helen E. Burrell	(360)	Kalamazoo, Michigan
Coastal Ga. Audubon Society	E. R. Fryer	(2422-4)	Brunswick, Georgia
Columbus Audubon Society	Frank E. Bader	(2203)	Columbus, Ohio
Denver Audubon Society	Kay Collins	(4208-9)	Denver, Colorado

National Organizations

Dupage Audubon Society	Alfred Dupree	(4226-7)	Wheaton, Illinois
Frankfort Audubon Society	Eloise C. Caroland	(1623)	Frankfort, Kentucky
Halifax River Audubon Society	Margaret L. Longdon	(527)	Daytona Beach, Fla.
Hudson Valley Audubon Society	Mary Ann Farrell	(366)	Dobbs Ferry, New York
Huntington Audubon Society	William B. Reeves	(1449-51)	Huntington, New York
Lakeland Audubon Society	Bruno E. Schiffeger	(1869-70)	Elkhorn, Wisconsin
Northern Adirondack Aud. Society	Howard K. Read	(318-9)	Plattsburgh, New York
North Cascades Audubon Society	Charlotte Schneider	(1331-2)	Bellingham, Washington
Oklawaha Valley Audubon Society	Ben S. Burton	(1288)	Leesburg, Florida
Orlenas Audubon Society	C. R. Morillo	(2758-9)	New Orleans, La.
Pelican Island Audubon Society	Herbert W. Kale, II	(1122)	Vero Beach, Florida
Portland Audubon Society	Harry D. Irons	(1674)	Portland, Oregon
Rockland Audubon Society	Padraic French	(2980-1)	West Nyack, New York
Sacramento Audubon Society	Paul M. Howard	(SF III 301-4)	Sacramento, California
Sand Ridge Audubon Society	Michael Ochman	(1730)	Riverdale, Illinois
Scarsdale Audubon Society	Louis Lopilato	(1933)	Scarsdale, New York
Tucson Audubon Society	Charles Coston	(2966)	Tucson, Arizona

National Organizations

Wabash Valley Audubon Society	Jack R. Munsee	(4780-1)	Terre Haute, Indiana
Natural Resources Defense Council	Tom Barlow	(3753-4)	New York, New York
" " " " , Inc.	Thomas Barlow	(DC II 174-82)	Washington, D. C.
Natural Resources Defense Council	Robert C. Stover	(DC III 92-106)	New York, New York
National Coalition of Land Reform	David M. Wierman	(SF II 221-7)	San Francisco, Calif.
National Parks & Conservation Assn.	John W. Grandy	(2852-76)	Washington, D. C.
National Water Resources Assoc.	Carl H. Brown	(DC I 141-51)	Washington, D. C.
" " " "	Milo W. Hoisveen	" " "	" "
National Rural Electric	Charles A. Robinson	(DC II 121-42)	" "
National Waterways Conference, Inc.	Harry N. Cook	(DC II 44-76)	" "
National Wildlife Federation	Thomas L. Kimball	5640-2)	" "
National Wildlife Federation	Stewart Udall	(DC I 152-62)	" "
Arkansas Wildlife Federation	Gus Albright	(3685-8)	Little Rock, Arkansas
Idaho Wildlife Federation	Robert Thomas	(2539)	Coeur D'Alene, Idaho
Illinois Wildlife Federation	Garland Grace	(2877-8)	Blue Island, Illinois
Montana Wildlife Federation	Donald Aldrich	(805-6)	Missoula, Montana
New Hampshire Wildlife Fed., Inc.	Rachael Terrill	(434-5)	Concord, New Hampshire

National Organizations

Nevada Wildlife Federation, Inc.	A. S. Burnett	(295-7)	Sparks, Nevada
North Dakota Wildlife Fed., Incorpor.	Robert S. Scheer	(116-31)	Bismarck, Missouri
" " " " "	Walter H. Hoff	(234)	" "
Oklahoma Wildlife Federation	George H. Hulsey	(1602-6)	Oklahoma City, Okla.
" " "	W. W. Howard	(3442)	" " "
South Dakota Wildlife Federation	H. F. McCellan, Sr.	(166-67)	Mobridge, South Dakota
" " " "	LeRoy Marin	(236)	" " "
South Central (Nat'l Wildlife Fed.)	Robert E. Apple	(3688)	Dardanelle, Arkansas
Wildlife Federation	James P. Agidius	(4126)	Moscow, Indiana
Native American Rights Fund	Joseph J. Brecher	(SF II 123-60) (5511-6)	Boulder, Colorado
Ozark Society	Neil Compton	(1813)	Bentonville, Arkansas
" "(Delta Chapter)	Thomas Foti	(4246)	Pine Bluff, Arkansas
Chapter of the Ozark Society	Larry Lambeth	(2253) (1406-7)	Springfield, Missouri
Military Rd. Chapter Ozark Society	Michael Ausbrooks	(4139-40)	Sheridan, Arkansas
Pulaski Chapter Ozark Society, Inc.	Everett Bowman	(1610)	Little Rock, Arkansas
Sierra Club	Jon T. Brown	(DC III 57-64)	Washington, D.C.
Sierra Club, Southwest Office	Henry Zeller	(5643-70)	Tucson, Arizona
" " Iowa Chapter	Lawrence Ladin	(573)	Des Moines, Iowa

National Organizations

Sierra Club, Tennessee Group	Richard C. Phelps	(279-80)	- -
" " Atlanta, Ga.	Josephine C. Jones	(3043)	Atlanta, Georgia
" " New Haven	L. Rowell & A.G. Huesmann	(3871-2)	Northford, Conn.
Delta Chapter Sierra Club	Wellborn Jack, Jr.	(SL 187-200)	Shreveport, La.
Sierra Club, Denver	Jim Fowler	(5303)	Denver, Colorado
" ", Greater Balto. Group	Linda G. Weimer	(1788)	Baltimore, Maryland
" " Heart of Illinois Group	Thomas D. Simpson	(1973)	Morton, Illinois
Helena Area Sierra Club	Patricia Antonick	(710-2)	Helena, Montana
Lone Star Chapter Sierra Club	Franklyn Wright	(1887)	Dallas, Texas
Marys Peak Group, Sierra Club	Patricia J. Harris	(3847-52)	Corvallis, Oregon
Sierra Club	Elmer Schooley	(324-5)	Montezuma, New Mexico
" "	G. E. Schindler	(632-5)	New Providence, N.J.
Sierra Club Northern Rocks	Wm. G. Garnett	(4251)	Pullman, Wa.
Ozark Chapter Sierra Club	Jerry M. Sugerman	(4555-8)	Olivette, Missouri
Pine Ridge Croup Rocky Mt. Sierra	Richard W. Dougherty	(4222)	Chadron, Nebraska
Rocky Mountain Chapter of the Sierra "	John Barker	(1059)	Denver, Colorado
Sierra Club, St. Louis	Charles B. Belt	(SL 74-6)	St. Louis, Missouri
" " "	Jerry Sugerman	(SL 299-307)	" " "
Sierra Club, Water Resource Comm.	Jacob Miller	(SF I 30-7)	San Francisco, Calif.
" " " " "	John Zierold	(SF II 38-51)	" " "
" " Shaker Hts.	Donald L. Gibbon	(3401)	Shaker Hts., Ohio
Southern New Jersey Group - Sierra	William A. Hall	(1372-3)	Princeton, N. J.

National Organizations

Sierra Club, Tulsa, Okla.	Frank D. Lewis	(1252-3)	Tulsa, Oklahoma
" " Uinta Chapter	David C. Raskin	(3260-4)	Salt Lake City, Utah
Nat'l Assoc. of Conservation Dist.	David G. Unger	(DC I 123-30)	Washington, D.C.
Alabama Conservancy	Robert E. Burks	(2213-5)	Birmingham, Alabama
Arkansas Association of Consev. Dist.	Haroll Jones	(1676-6)	Lavaca, Arkansas
" " " " "	Jack Gibson	(1517-8)	Dermott, Arkansas
Ariz. Association of Conservation "	Desmond G. Wood	(5253-5)	Phoenix, Arizona
California Association of Res. Con. "	Kenneth S. Haussler	(1834)	Sacramento, Calif.
" " " " " "	" "	(SF II 174-5)	Davis, California
Conn. Assoc. of Soil & Water Conservation Districts	John Breakell	(2356)	Goshen, Connecticut
State Soil Conservation Comm.	C.F. Bredahl	(1614-5)	Topeka, Kansas
Michigan Soil Cons. Districts, Inc.	Joseph Garman	(1302-6)	Mendon, Michigan
" " " " "	Walter N. Wood	(1797-8)	Marlette, Michigan
" " " " "	Walter M. Wood	(1988-9)	Kingston, Michigan
" " " " "		(5589)	
Missouri Assn. of Soil & WCD	George T. Trial	(4960-1)	Columbia, Missouri
Nebraska S&WCD	Carroll Harmon	(DC III 210-5)	Lincoln, Nebraska
North Dakota Assoc. of SCD's	Bud Lannoye	(833-4)	Bismarck, N. Dak.

National Organizations

South Carolina S&WC Commission	W. B. Bennett, Jr.	(4166-9)	Columbia, S. C.
Allen County S&WC District	Ellis McFadden	(3219-30)	Ft. Wayne, Indiana
Area I Assn. of Ind. S&WC Cons. Dist.	Lawrence	(1857-8)	Francesville, Ind.
Barnes County Soil Consv. District	M. I. Skramstad	(4535)	Valley City, N. Dak.
" " " " "	Sidney Thompson	(4535)	Valley City, N. Dak.
" " " " "	Martin Lanson	(5435)	" " "
Bogue Chitto-Pearl River SCD		(5301-2)	Franklinton, La.
Brown County Soil & Water Con. Dist.	Frederick G. Lorenz	(4343)	Nashville, Indiana
Busseron Conservancy District	Harold Dodd	(2690)	Sullivan, Indiana
Butler Soil & Water Consv. District	W. L. Duncan	(2974)	Poplar Bluff, Missouri
Caldwell County Soil & WCD	Medille B. Sackman	(3572)	Kingston, Missouri
Carroll Cnty. S&WCD	Merrill Hughes	(2719-20)	Delphi, Indiana
Chariton County S&WC	L. E. Manson	(1936)	Keytesville, Missouri
Chase Cnty Soil Conservation Dist.	Paul Scharenberg	(2778)	Cottonwood Falls, Kans.
Clay County Soil & Water Con. Dist.	Marshall Nuckolls	(2322)	Brazil, Indiana
" " " " " "	Stanford Schoonover	(1763)	Louisville, Illinois
" " " " " "	Harley Bogue	(4173-4)	Liberty, Missouri
Clinton " " " " "	Lawrence Gibson	(4252-3)	Plattsburg, Missouri
Colorado River Water Consv. Dist.	Roland C. Fishcher	(DC II 272-81)	Glenwood Seps, Colo.
Crawford County Soil-Water Con. "	Elmer Laswell	(1690)	English, Indiana
Dolores Water Conservancy Dist.	Ivan W. Patterson	(844-5)	Cortez, Colorado
Dorcheat S&WCD	R. D. Hinton	(1104-5)	Minden, Louisiana
Dubois County SWCD	Otto Bauer	(2343)	Jasper, Indiana

National Organizations

Dugdemona Soil & Water Conservation	Kenneth Durrett	(1643)	Jonesboro, Louisiana
Dunning Water District	Russel Millsap	(SF II 291-300)	Woodland, California
East Cass Soil Conservation Dist.	R. V. Powers	(2767)	West Fargo, N. Dak.
East Traill Soil & Water Consv. Dist.	Carroll Borke	(2350)	Hillsboro, N. Dak.
Eastern Grand Forks County	Frank Dubuque	(1642)	Grand Forks, N. Dak.
Foster County Soil Conservation Dist.	Lawrence Utke	(2109)	Carrington, N. Dak.
Indiana Assn. Soil & Water Cons. Dist.	Keith Holloway	(2313-5)	Frankfort, Indiana
Franklin County Soil & WCD	Edward M. Webb	(4050)	Benton, Illinois
Gallatin Cnty S&WCD	Lee Ramsey	(1554)	Ridgway, Illinois
Garrison Diversion Conservancy Dist.	Vernon S. Cooper	(140-2)	Carrington, N. Dak.
" " " "	Roy A. Holand	(DC III 20-3)	" "
Gascondade Cnty. Soil & Water	E. A. Bohl	(4175)	Hermann, Missouri
Gentry County SCD	Arthur Bonham	(3353)	Albany, Missouri
Gibson Cty. Soil & Water Cons. Dist.	Earl Strickland	(4022)	Princeton, Indiana
Gooseneck Soil Conservation District	Delere B. Nelson	(1726)	Kenmare, N. Dak.
Greater Indian Creek Consvncy Dist.	Vincent A. Ott	(3229)	Georgetown, Indiana
Greene Cnty. S&WCD	Robert Woodruff	(1990)	Bloomfield, Indiana
" " " "	Paul P. Rogers	(SL 308-12)	Rogersville, Missouri
" " " "	H. C. Bouldin	(SL 316)	" "

National Organizations

Gulf Coast SWCD	Raymond V. Reeds	(3564)	Lake Charles, La.
Haaken Cnty Conservation District	Keith Emerson	(2734)	Philip, South Dakota
Hamilton County S&WCD	Donald J. Morris	(4478-80)	McLeansboro, Illinois
Harrison County S&WCD	Noble L. Leffler	(2741)	Corydon, Indiana
" " "	Claude Hopkins	(4293)	Bethany, Missouri
Hendricks County S&WCD	Donald Lawson	(1691)	Danville, Indiana
Huntington Co. S&WCD	Noel Buzzard	(2008-9)	Huntington, Indiana
Jackson County Soil & Water Cons.	Wallace Robertson	(3272)	Brownstown, Indiana
Jasper County S&WCD	Bill Ramey	(3256-9)	Rensselaer, Indiana
Johnson County S&WCD	Edgar Pritchard	(1742-3)	Franklin, Indiana
Jones County S&WCD	Orville Lucas	(5759)	Murdro, South Dakota
" " "	Herman B. Hendricks	(5759)	" "
" " "	Dale A. Iverson	(5759)	" "
" " "	Richard H. Nix	(5759)	" "
" " "	Edward Davis	(5759)	" "
Kings River Conservation District	Ralph A. Macdonald	(1843-6)	Fresno, California
Soil & Water Conserv. Dist.(Knox Co.)	Clifford Chattin	(1626)	Vicennes, Indiana
Lake Cnty. Flood Control WCD	Willard Hansen	(2880-3)	Lakeport, Calif.
Lake Cnty. Soil & WCD	Gilbert Stiener	(4020)	Crown Point, Ind.
Lawrence Cnty. S&WCD	Walter Carter	(3634-5)	Bedford, Indiana
Linn Cnty. S&WCD	Chesley Montgomery	(3955)	Brookfield, Missouri

National Organizations

Soil & Water Conservation Dist., Ill.	Robert G. Baker	(1345)	Lerna, Illinois
Water Resources Committee, S&WCD	W. T. Crane	(2365-71)	Loogootee, Indiana
Lost River-Springs Valley Conservancy	Gene Sherfick	(3279-82)	Shoals, Indiana
Lower East Red River S&WCD	Richard S. Thompson	(2909)	Jena, Louisiana
Lower Trinity S&WCD	B. J. Jones	(3638)	Liberty, Texas
" " "	J.E. Clark, Jr.	(3638)	" "
Lyon County SCD	Wayne Van Gundy	(2798)	Emporia, Kansas
Macon Cnty. S&WCD	Grisham White	(2803)	Macon, Missouri
Marion S&WCD	Kenneth Ryan	(4526-8)	Palmyra, Missouri
Marshall Cnty. S&WCD	Charles W. Baker	(5284)	Plymouth, Indiana
Martin County Soil & WCD	Allen Baker	(2918)	Shoals, Indiana
" " " "	Bernard Harker	(2999-3000)	" "
Mellette County SCD	Charles Chamberlain	(2735)	White River, S. Dak.
" " "	Lawrence Peacock	(2735)	" " "
" " "	Andy Harris	(2735)	" " "
" " "	R. W. Fronek	(2735)	" " "
" " "	Derrill Glynn	(2735)	" " "
Merrillville Cons. District	John Horton	(1106)	Merrillville, Indiana
Middle Fork Watershed C D	Cyril Klearing	(4317-8)	Tell City, Indiana
Morris County Soil Conservation Dist.	Harold F. Johnson	(2722)	Council Grove, Kans.
" " " " "	Robert Geiswein	(2985)	" " "
Napa County Flood Control & WCD	Joseph V. Reynolds	(1747-9)	Napa, California
Navarro S&WCD	B. Lynn Sanders	(DC III 295-300)	Corsicana, Texas

National Organizations

Nelson County Soil Conservation Dist.	Tollef Larson	(2254)	Lakota, N. Dak.
Newton County S&WCD	Jim Stone	(4547)	Neosho, Missouri
Soil & Water Consv. Dist - Nodaway	Lyman McIntyre	(3063)	Maryville, Missouri
Northeast Soil and Water Consv. Dist.	H. A. Cruce	(775)	Winnsboro, Louisiana
Soil & Water Cons. Dist. of Ore. Cnty.	Max Simpson	(4013)	Alton, Missouri
Orange County SWCD	Melvin Cornwell	(2363-4)	Paoli, Indiana
Orestimba Soil Conservation Dist.	Fred G. Lucas	(2261)	Westley, California
Owen County S&WCD	Robert Curry	(4670)	Spencer, Indiana
Soil & Water Conservation Dist.	Paul Miller	(2756-7)	Rockville, Indiana
Patterson Soil Conservation District	Martin Barbaste	(2204)	Patterson, California
Pembina County SCD	Ernest Malo	(2262)	Cavalier, N. Dak.
Pembina " Water Management Dist.	George H. Brown	(2298)	" "
Perry Soil & Water Conservation	Al G. Dauby	(4216-7)	Cannelton, Indiana
Pike County Soil & Water Cons. Dist.	Donald Whitehead	(2120)	Otwell, Indiana
Polk Jacinto Soil & Water " "	Wayne R. Baker	(3691)	Livingston, Texas
Porter Cnty. S W C D	Walter Roeske	(2568)	Valparaiso, Indiana
Putnam Cnty. S&WCD	Gene Clodfelter	(1812)	Greencastle, Indiana
Randolph Cnty S&WCD	Bill Trusty	(4035) (5422)	Moberly, Missouri

National Organizations

Ray Soil & Water Conservation District	Jerry L. Lester	(2742)	Richmond, Missouri
Reynolds County SWCD	Carl Widger	(4621)	Ellington, Missouri
Rock Creek Conservancy District	Allan S. Elliott	(2026)	Bluffton, Indiana
St. Joseph CS&WCD	John Derksen	(2383-5)	South Bend, Indiana
Saline County S&WCD	Henry Bramlet	(2355)	Harrisburg, Illinois
Shannon County S&WCD	Jerry Cooper	(2965)	Eminence, Missouri
Slope Hettinger SCD	Burke Lambourn	(5765)	New England, N. Dak.
" " "	Leland H. Hohnson	(5765)	" " "
" " "	Wallace A. Jacobs	(5765)	" " "
" " "	Carl M. Bittenbinder	(5765)	" " "
" " "	Nick J. Keinert	(5765)	" " "
Southeast Colo. Water Conser. Dist.	Charles L. Thomson(DC I294-312)		Pueblo, Colorado
Southwestern Water Conservation Dist.	D. Lewis Williams	(5247)	Colorado
Steele County Soil Consv. District	Vernon Plaine	(1739)	Finley, North Dakota
SWCD	Max Brand	(1998)	Sullivan, Indiana
Tehama County Flood Control &WCD	Lawrence A. Coleman	(1648-50)	Gerber, California
" " " " "	Noble L. Engle	(1820-22)	" "
Tri-County Water Conservancy - Colo.		(5275-80)	Montrose, Colorado
Turtle Mountain	Orlando Gorder	(2432)	Bottineau, N. Dak.
Upper Delta Soil & WCD	B. C. Devall	(1818)	New Roads, Louisiana
Upper Sabine Soil & WCD	B. H. Rogers	(1455)	Mansfield, Louisiana

National Organizations

Vermillion County S&WCD	Paul S. Wimsett	(1985-6)	Newport, Indiana
" " "	Arthur E. Mayes	(1937-8)	" "
" " "	Arthur Tolley	(2794-5)	" "
" " "	Raymond Parks	(1942-3)	" "
" " "	Craig Jones	(1924-5)	" "
Wabash County SWCD	Dean Eppley	(2238-9)	Wabash, Indiana
Warrick County SWCD	Lawrence F. Titzer	(4565)	Chandler, Indiana
Wayne County S&WCD	T. J. Wright	(1991)	Richmond, Indiana
Webster County S&WCD	Dale Short	(SL 315)	Marshfield, Missouri
" " "	" "	(3284)	" "
Wells County Soil Consv. District	Ed Mack	(2063)	Fessenden, N. Dak.
West Divide Water Conservancy Dist.	Carl Bernklan	(DC III 321-4)	Rifle, Colo.
Western Grand Forks Cnty. SCD	Clarence A. Kyllo	(2251)	Larimore, N. Dak.
Whitewater Valley Conserv. District	Floyd E. Howard	(5414)	Richmond, Indiana
Wild Rice Soil Consv. District	Theo Hoflan	(2312)	Forman, N. Dak.
Wright Cty. Soil & WCD	G. A. Gutschke	(3768)	Hartville, Missouri
Trout Unlimited Chattahoochee Cptr.	Herb Beattie	(1493)	Atlanta, Georgia
Propeller Club	W. W. Roller	(SL 246)	Alton, Illinois
U.S. Propeller Club	M. J. Stewart	(959)	Cincinnati, Ohio
" " "	" "	(1470, 5178-5223)	" "
" " "	William Hemmeter, Jr.	(631)	Nashville, Tenn.
" " "	James G. Stephens	(4983)	Port of Paducah, Ky.
" " "	" " "	(1233)	" " " "
Water Resources Congress	Charles D. Maynard	(1849)	Washington, D.C.

National Organizations

Water Resources Congress	E. Michael Cassady	(4969-73) (DC II 161-73)	Washington, D. C.
Water Resources Congress (Neb. -Iowa)	Ralph F. Schlenker	(1971-2)	Omaha, Nebraska
" " "	Robert G. Goodwin	(SL 150-4)	St. Louis, Missouri
Water Resources Congress & Salt Valley Watershed	Anthony Kucera	(SL 180-6)	
The Wilderness Society	Ernest M. Dickerman	(2)	Washington, D. C.
" " "	Hanna DeVegh	(221)	
" " " Consv. Worker	Jim McAlister	(2053-9)	Boise, Idaho
Wildlife Management Institute	Laurence R. Jahn	(DC III 32-46)	Washington, D. C.
Wildlife Society	Ernie Dickerman	(DC III 259-63)	
University of Wyo. (Wildlife Soc.)	Beth E. Wessel	(3610-12)	Laramie, Wyoming
Wildlife Society, No. Dakota Chapter	Larry Kruckenberg	(2738-9)	Bismarck, N. Dak.
Water Resources Comm. Int'l Assn.	Charles D. Kelley	(5600-4)	
WHO Int'l Ref. Centre for Community Water Supply	IR Th C. Martijn	(4770)	The Hague - Netherlands

State-wide Organizations

Alabama			
Alabama Conservancy and Foundation	George W. Folkerts	(SL 131-149)	Auburn
Arkansas			
Arkansas Game and Fish Commission	Andrew H. Hulsey	(4748-4749)	Little Rock
Arkansas Game and Fish Commission	David G. Criner	(SL 235-237)	Little Rock
Arkansas Wildlife Federation	Ralph Gillham	(3765)	Dardanelle
Arkansas Department of Commerce	S. Keith Jackson	(1533-1534)	Little Rock
Environmental Planning Division	Harold E. Alexander	(5281-5283)	Little Rock
Arizona			
Arizona Water Commission	Thomas C. Clark	(SF II 183-189)	Phoenix
California			
California Water Commission	Ira J. Chrisman	(SF II 277-285)	No City
California Water Resources Assn.	F. W. Russell	(SF II 76-81)	Auburn
California Water Resources Assn.	No Name	(1290-1291)	Glendale
Department of Fish and Game	G. Ray Arnett	(4135-4136)	Sacramento
Department of Water Resources	John Teerink	(SF II 190-202)	Sacramento
Reclamation Board	A. E. McCollam	(2476-2492)	Sacramento
State of California-Resources Agency	William Penn Mott, Jr.	(1115-1116)	Sacramento
Georgia			
Georgia Game and Fish Commission	Jack A. Crockford	(5545-5546)	Atlanta
Hawaii			
Department of Land & Natural Resources	Steven L. Montgomery	(4778)	Honolulu

State-wide Organizations

Idaho			
Department of Water Administration	R. Keith Higginson	(1250-1251)	Boise
Idaho Environmental Council	Jerry Jayne	(2539-2553)	Moscow
Idaho Fish and Game Department	Jack Fisher	(3745-3747)	Boise
Idaho Water Resources Board	Robert R. Lee	(4334-4342)	"
Illinois			
Natural Resources Council of Illinois	Raymond Mostek	(3139)	Lombard
Indiana			
Department of Natural Resources	Acord Cantwell	(2216-2222)	Indianapolis
Department of Natural Resources	S. Donald Durfee	(4230-4232)	"
Indiana Conservation Council	Homer Brenneman	(2818)	"
Kansas			
Associated Industries of Kansas	No Name	(5429-5434)	No City
Kansas Geological Survey	Ernest E. Angino	(134-135)	Lawrence
Kansas Water Resources Board	Keith Krause	(SL 451-62)	Topeka
State Assn. of Kansas Watersheds	E. E. Jabes	(4750-4752)	Derby
Kentucky			
Department of Natural Resources	Jewell Graham	(2703)	Frankfort
Massachusetts			
Mass. Division of Fisheries & Game	Richard Cronin	(365, 1075-1081)	Westboro

State-wide Organizations

Michigan

Department of Natural Resources	Ralph A. MacMullan	(3916-3921) (5587-5588) (5593-5599) (5753)	Lansing
Department of Natural Resources	Ralph W. Purdy	(3983-3989)	"
Michigan Nature Association	Helen B. Groh	(402)	Mount Clemens
Michigan United Conservation Clubs	Paul J. Leach	(605)	Lansing
State Soil Conservation Commission	Russell G. Hill	(5526-5527) (5587-5588) (5590-5592)	East Lansing

Minnesota

Minnesota Conservation Federation	Al Farmes	(4242)	Hopkins
Univ. of Minnesota, Dept. of Anthropology	Elden Johnson	(137)	Minneapolis

Missouri

Missouri Department of Conservation	William Dieffenback	(SL 271-273)	Jefferson City

Montana

Montana Water Development Association	Keith Williams	(2808-2809)	Helena
Montana Wilderness Association	Cecil Garland	(144-145) (3758-3759)	Bozeman

Nebraska

Game & Parks Commission	Willard R. Barbee	(4160-4161)	Lincoln

State-wide Organizations

Nevada

Colorado River Commission of Nevada	Donald L. Paff	(4782)	Las Vegas
Department of Fish and Game	Frank W. Groves	(491)	Reno
Nevada Division of Water Resources	Adrian O. Hutchens	(DC III 213-232)	Carson City
Nevada Open Spaces Council, Inc.	Howard G. Booth	(1069-1070)	Las Vegas

New York

Dept. of Environmental Conservation	Henry L. Diamond	(5555-5558)	Albany
Office of Planning Services	William W. Horne	(2243-2244)	"

North Carolina

Department of Water & Air Resources	George E. Pickett	(DC III 233-237) (578)	Raleigh

North Dakota

Central Power Electric Cooperatives	No Name	(DC I 360)	No City
North Dakota State Water Commission	No Name	(DC I 361-362)	No City
North Dakota State Water Commission	Milo W. Hoisveen	(5088-5091)	Bismarck
North Dakota Water Management Dist. Assn.	Cliff Jochim	(SL 170-175)	"
North Dakota Water Users	No Name	(DC I 363-364)	No City

Ohio

Department of Natural Resources	William B. Nye	(2895-2896)	Columbus
Ohio Conservation Foundation	Richard S. McCutchen	(4355-4357)	Worthington

Oklahoma

Department of Wildlife Conservation	Farrell Copelin	(989)	Oklahoma City
Oklahoma Assn. of Electric Cooperatives	Czar D. Langston, Jr.	(651)	"

State-wide Organizations

Oklahoma			
Oklahoma Water Resources Board	Milton C. Craig	(5401-5403)	Oklahoma City
Pennsylvania			
Commonwealth of Pennsylvania	C. H. McConnell	(3908-3911)	Harrisburg
Pa. Federation of Sportsmen's Clubs	Seth L. Myers	(372)	Sharon
South Dakota			
State Planning Agency	F. H. Ireland	(1918-1919)	Pierre
Tennessee			
Environmental Affairs	Edward L. Thackston	(4264)	Nashville
Office of Urban & Federal Affairs	Richard A. Henderlight	(4264)	"
Texas			
Texas Water Conservation Association	William J. Waddle	(DC III 441-443) (867-869)	Austin
Utah			
Division of Water Resources	James G. Christensen	(DC III 238-241)	Salt Lake City
Utah Water Users Association	Robert B. Hilbert	(4266-4267)	Logan
Washington			
Public Utility Dist. No. 1 of Franklin Co.	Sit T. Hansen	(1205-1206)	Pasco
Washington Fly Fishing Club	Carl R. Coggins	(1354)	Seattle

State-wide Organizations

Washington

Wash. Public Utility Districts Assn.	Ken Billington	(1895-1896)	Seattle
Washington Reclamation Association	Russell D. Smith	(3581-3582)	Yakima

Chambers of Commerce

Amarillo, Tex.	(1664)	Donald L. Hileman
Arkansas City, Kans.	(779)	David H. Daulton
" " "	(1466-7)	Stanley F. Spencer
Brownwood, Tex.	(1894)	H. Raymond Beck
Sacramento, Calif.	(4316)	Larry Kiml
Carmen, Oklahoma	(5710)	Robert Shick
Charleston Amer., Ill.	(SL - 256-7)	Jerry Bennett
Clinton, Indiana	(2655)	D. J. Avenatti
Corsicana, Tex.	(2766)	Ned Polk
Council Grove, Kans.	(2765)	Melvin Pickett
Dallas, Texas	(5369)	Jim Welsh
" Negro, Tex.	(4786)	Noel L. Reed
Ennis, Texas	(2061)	Jack McKay
Fairview, Okla.	(5391)	Howard Ray
Fort Worth, Tex.	(5395)	Donald M. Anthony
Greater Chico, Calif.	(4779)	Joe Mattram
Greater Topeka, Kans.	(4776)	John O. Miller
	(1549)	
Hillsboro, Texas	(1740-1)	James Prentice
Hollis, Oklahoma	(2624)	U. M. Garrison
Joplin, Mo.	(4354)	The Joplin

Kansas City, Kans.	(5107-8)	
Lawrence, Kans.	(1624-5)	John P. Crown
" "	(1625)	Wm. L. Woods
Lawrence County Lawrenceville, Ill.	(757-8)	Clyde W. Smith
Liberty, Texas	(3756)	Dan C. Fry
Littlefield, Texas	(3230-1)	Doyle Patton
Louisville Area, Ky.	(4259-60)	Charles F. Hard
Love Cl Marietta, Ok.	(5707)	C. B. Cochran
McAlester, Okla.	(4566-4600)	Fred G. Turner
Mabank, Texas	(2428)	Andrew Gibbs
Malakoff, Tex.	(2342)	Eddie Garrison
" "	(2342)	Claude Bankston
Metro Politan Evans., Indiana	(3330-1)	Russell E. Bailey
Metropolitan Tulsa, Oklahoma	(772-3)	Clyde C. Cole, Jr.
Newport Area, Newport, Arkansas	(4929)	John Minor
Newton, Kans.	(4 664)	Richard Chamberlain
Odessa, Texas	(1655)	Gene Garrison
Orleans, Indiana	(2718)	William R. Himebaugh

Chambers of Commerce

Palestine, Tex.	(2531)	Carroll Pouncey
Paoli, Indiana	(3304-5)	
" "	(3305)	William R. Williman
Pecos, Tex.	(1714)	Harold Myer
Raleigh, N.C. (DC III	247-50)	John Adams
San Antonio, Tex.	(2255-7)	Pat Legan
Shattuck, Oklahoma	(2630)	L. M. Haydon
Sioux City, Iowa	(2093-4)	
South Sioux City, Neb.	(4017)	Harold A. Smock
Spearman, Tex.	(3352)	J. E. Blackburn
Spokana, Wash.	(4514-5)	Geo. Reitemeier
Springs Valley Area (French Lick Ind.)	(2661)	Harriett Brown
	(2661)	Wayne Ferguson
	(2660-1)	H. Lindsey

Springs Valley Area	(2660-1)	J. L. Ballard
Strong City, Kans.	(5337)	Ray Meyer
Terry County (Brownfield, Tex.	(1471)	John H. Stockton, Jr.
Trinity, Texas	(3296)	William S. Thornton
Trinity River Ft. Worth, Tex.	(2530)	W. R. Poterfield
Waco, Texas	(4639-40)	Bill Bailey
West Texas (Abilene, Tex.)	(5772) (2987-92)	J. Fike Godfrey
Wichita Kansas Area, Kans.	(SL 232-34)	R. S. Delamater

Other Organizations

A. L. Mechling Barge Lines, Inc.	F. A. Mechling	(5001-2)	Elmhurst, Illinois
Ainsworth Irrigation District	Henry Miles	(1715)	Ainsworth, Nebraska
Albert Equipment Company, Inc.	E. R. Albert	(348-5)	Tulsa, Oklahoma
Allen - Stevens Corporation	Albert Sanders	(706)	Woodside, New York
Amador County Board of Supervisors	Marie C. Aiken	(1583-4)	Jackson, California
Amador County Water Agency	Richard Search	(1565-6)	" "
American Commercial Lines, Inc.	J. W. Hershey	(DC III 7-19)	
American First Title & Trust Co.	Richard H. Godfy	(2648)	Houston, Texas
The American National Bank	R. C. Hulsey	(4747)	Oklahoma City, Okla.
Anahuac Towing & Shell Co.	Ernest F. Ezer	(4237)	Terrell, Texas
Anderson River Conservancy	Sylvester Harpenau	(3001)	Anahuac, Texas
Aquilla-Hackberry Creek Consv.	Paul H. Harvey	(1833)	St. Meinard, Indiana.
Arkansas Basin Development Association in Kansas	Frank W. Liebert	(4754-60)	Hillsboro, Texas Coffeyville, Kansas
The Arkansas Basin Development Association, Inc.		(320)	
Arkansas Basin Devel'p. Asso.	Vernon W. Pinkey	(652)	Tulsa, Oklahoma
Arkansas Ecology Center	Marcus R. Tower	(480-4)	" "
Arkansas River Basin Interstate Commerce	Pratt Remmel, Jr.	(SL 258-64)	Little Rock, Arkansas
Arkansas River Development Corp.	Frank W. Liebert	(4761-5)	Tulsa, Oklahoma
Arkansas River Four States Comm.	Jack Story	(4548-9)	" "
Arkansas Waterways Commission	Emmett Sanders	(1759)	Little Rock, Ark.
Asotin County Port District	Paul E. Adams	(1992-4)	" " "
Associated Students	Earle Ausman	(5508-9)	Clarkston, Washington
Association for a Natural Trin. River	Sac. State College	(4137-8)	Sacramento, California
Awalt Wholesale	A. J. Etie III	(2027)	Houston, Texas
	L P & M C Awalt	(2656)	Fairfield, Texas

Other Organizations

Badlands Environmental Asso.	Helene MacDonald	(494)	Dickinson, No. Dak.
Bank of Mabank	Donald Gibbs	(2429)	Mabank, Texas
Basin Electric Power Cooperative	James L. Grahl	(2845-51)	Bismarck, No. Dak.
Baton Rouge Sportsmen's League	Wilson J. Thibodeaux	(4564)	Baton Rouge, La.
Beaver County Conservation League	Phillip C. Williams	(873-4, 1193-4)	Beaver Fall, Penna.
Beets Contract Interiors	A. R. Beets	(2815)	Mabank, Texas
Big Country Headwaters	Troy A. Pollard	(4505)	Craig, Colorado
Big Country Headwaters	John Zimmerman	(965)	Craig, Colo.
Big Thicket Association	Pete A. Gunter	(114)	Denton, Texas
Blue Ash Center Bldg.	Fremont & Lewis, Inc.	(3751-2)	Cincinnati, Ohio
Board of County Commissioners	Arthur V. Strock	(3590)	Fort Lauderdale, Fla
Board of Harbor Commissioners	James J. Yarbrough	(4060-70)	Crescent City, Calif.
Board of Levee Commissioners	Norman C. Brewer	(1999 - 2002)	Greenwood, Miss.
Board of Supervisors, Cnty	James S. Mize	(1218-20)	Los Angeles, Calif.
Board of Supervisors Marin County	Geo. H. Gnoss	(5582-3)	San Rafael, Calif.
Board of Water Commissioners	J. L. Ogilvie	(3975-6)	Denver, Colorado
Bob Hardy Oil Company	Robert D. Hardy Jr.	(4261)	New Waverly, Tex.
Boise Valley Fly Fishermen	William Mason	(611)	Boise, Idaho
Bond County	John L. DeLaurenti	(1639)	Greenville, Illinois
Brazos River Authority	Walter J. Wells	(DC III 158-170)	Waco, Texas
Brevard County Erosion Control	Robert P. Murkshe	(1113-4)	Cocoa Beach, Florida
Brown & Root Incorporated	H. York	(2810)	Anahuac, Texas
Bunkley & Jones, Gen. Insurance	Bunkley & Jones	(1285)	Seymour, Texas
Burleson Outfitters	Harry R. Burleson	(174-75)	Rosebud, Texas

Other Organizations

California Action	Keith Roberts	(SF II 67-75)	San Francisco, Calif.
Calif. Assoc. of Port Authority	C. R. Nickerson	(3970-1)	" "
Calif. Central Valley Flood	John Luther	(SF I 143-152)	Carmichael, Calif.
Calif. Committee of Two Million	Joseph Paul	(2414-7)	San Francisco, Calif.
California Farm Bureau FDRTN	William I. Dubois	(SF II 286-7)	Sacramento, Calif.
California Roadside Council	Ralph A. Reynolds	(629)	San Francisco, Calif.
California Trout	Joseph Paul	(168)	" "
Calleguas Municipal Water Dist.	Vincent M. Hardy	(1662)	Thousand Oaks, Calif.
Cambridge Banking Partners	William O. Brachman	(3714-6)	Denver, Colorado
Canal Authority of Florida	Giles L. Evans, Jr.	(4235-6) (574-5)	Jacksonville, Fla.
Carr, Kennedy, Peterson, and Frost Law Offices	Daniel S. Frost	(1094)	Redding, California
Central Basin Municipal Water Dist.	Margaret Rutherford	(1756-8)	Downey, California
Central City Sportsman's Club	Gary L. Green	(98)	Central City, Neb.
Central Ohio Angler's & Hunter's Clb.	Victor C. James	(2247-8)	Columbus, Ohio
The Central Ohio Angler's Hunt. Club	Henry A. Kahrmann	(2247-8)	" "
Central Utah Water District	Clyde Ritchie	(DC III 242-4)	Otem, Utah
Chain O'Lakes Conservation Club	Jerry Jiricek	(3041-2)	South Bend, Ind.
Chambers Liberty Counties Navigation District	Vernon F. Poole	(DC III 277-84, 5164-9)	Liberty, Texas
Chase County Farmers Union	Bennie C. Holtsclaw	(2040-1)	Cedar Point, Kans.
Chattahoochee River Basin Development Commission	Burton J. Bell	(2344-5)	Atlanta, Ga.
Cornell, Howland, Hayes & Merry.	Herschel F. Jones	(5454, 5398-1) (1678-81)	Bellevue, Wash.

Other Organizations

Chesapeake Bay Foundation	Nancy G. Dimsdale	(2014-5)	Annapolis, Md.
Cincinnati Country Day School	William H. Hopple, Jr.	(5638)	Cincinnati, Ohio
Citizens for a Better Environment	Miguel Angel Ramos	(3993)	San Antonio, Tex.
Citizens Comm. for the Hudson Valley	William Hoppen	(829-30)	New York, N. Y.
Citizen's ConservationCorps	Jack Mendenhall	(1146)	Auguippa, Penna.
Citizens for Environmental Action	Billie L. Mynatt	(2511-3)	Springfield, Mo.
Citizens Environmental Coalition	Stuart N. Henry	(4828-36)	Houston, Texas
Citizens Environmental Council	Cathy Burge	(810)	Kansas City, Mo.
Citizens for the Kickapoo Area	Robert P. Vosen	(1187-8)	La Farge, Wisc.
Citizens National Bank	Ken Ward	(2286)	Ennis, Texas
Citizens Preservation James River	John Atkinson	(SL 313-4) (2912-6)	Rogersville, Mo.
Citizens State Bank	Eddie Garrison	(2702)	Malakoff, Texas
City Council of Hillsboro	E. J. Ray, Jr.	(1865-6)	Hillsboro, Tex.
City of Houston City Hall	E. B. Cape	(DC III 292-4)	Houston, Texas
City of Waco	David F. Smith, Jr.	(1772-3)	Waco, Texas
Clair A. Hill & Associates	Amalio Gomez	(SF I 60-3)	Sacramento, Calif.
Coalition on American Rivers	Brue Hannon	(160)	Champaign, Ill.
Coalition on American Rivers and Allenton Park Committee	A. James Heins	(SL 206-24)	Urbana, Ill.
Coalition of Environment	C. A. Schweighauser	(SL 155-69)	St. Louis, Missouri
Cohen and Rosenblum	Geoffrey Judd Vitt	(3601)	Alexandria, Va.
Coll. Park Ecological Association	Judy Comparetto	(DC III 193-9)	College Park, Md.
Colorado Open Space Council	Edward Connors	(4979-81)	Colorado
Colorado White Water Association	Mike O'Brien	(3224)	Boulder, Colorado
Columbia Basin Development League	W. G. Wolford	(4634-5)	Ephrata, Wash.
Columbia River Conservation League	John C. Sheppard	(1769-70)	Richland, Wash.

Other Organizations

Columbia River Fishermen's (Protective Union)	Russell Bristow	(4652)	Astoria, Oregon
Commissioner of Waterworks Street.	James R. Love	(5450)	Topeka, Kansas
Comm. Ag. High Dams in Meramec Basin	William C. Schock	(SL 238-45)	St. Louis, Mo.
Comm. Cost of Money and Taxes	Herbert B. Cohn	(DC II 183-95)	New York, N. Y.
Committee on the East Fork of the Little Miami	Paul H. McCarthy	(1934)	Batavia, Ohio
Committee on the Embarras River	John C. Marlin	(3106-11)	Urbana, Ill.
Committee on Environmental Program and Projects	Donale E. Clusen	(2955-64)	Washington, D. C.
Com. for Leaving the Environment of America Natural	Glenn H. Clemmer	(1811)	Starkville, Miss.
Comm. to Save Black Mesa	Mitchell J. Fowler	(5304-7)	Chinle, Navajo Nat.
Comm. of Schoharie Valley Env.	Merritt H. Bidwell	(1063)	West Fulton, N. Y.
Community Air Pollution Comm.	Joseph Kaufman	(1123)	Camden, N. J.
Community Relations Dir.	I. A. Myers	(1017)	Marion, Indiana
Conard Theilen Motors	Gordon I. Theilen	(2793)	Palestine, Texas
Connecticut River Ecology Action Cor.	David W. Stickel	(3583-4)	So. Hadley, Mass.
Conservation Commission	Town of Hingham	(1941)	Hingham, Mass.
Cons. Committee EMC Wilderness Clb.	Stan Walthall	(380)	Billings, Mont.
Conservation Federation of Mo.	Ed Stegner	(1777-8)	Jefferson City, Mo.
Cons. Society of Long Bch. Island	A. Jerome Walnut	(1982)	Barnegat Light, N. J.
Contra Costa County Supervisors	E. A. Linscheid	(3891-3)	Martinez, Calif.
Contra Costa Resource Consv.	Arthur W. Emerson	(3385)	Concord, Calif.
Coosa-Ala. River Improvement Asso.	Robert E. Snetzer	(150-2)	Montgomery, Ala.

Other Organizations

Corisicana Daily Sun	A. J. Keeney	(2725)	Corsicana, Texas
County Administrative Officer	Milton D. McCoy	(837-8)	Handord, Calif.
Curtis Creek Trout Rearing Station	Ralph D. Barnes	(1591)	Howe, Indiana
Dallas Times Herald	Bert Holmes	(4735-42)	Dallas, Texas
Davies County Fish & Game	J. R. Davidson	(4218)	Owensboro, K. Y.
Dearing and Hartzog	Robert L. Hartzog	(3856)	Clayton, Missouri
Debevoise & Liberman	William J. Madden	(3922-6)	Washington, D.C.
Deep Fork Watershed Association	Carney O. Dean	(2138)	Chandler, Okla.
Deep Fork Watershed Association	Elliott Forbis	(2698)	Davenport, Okla.
Defenders of the Ozarks	Paul L. Redfearn	(1555)	Springfield, Missouri
Delaware River Basin Commission	James F. Wright	(DC III 251-8)	Trenton, N. J.
Delta Council	Robert A. Carson	(649-50)	Stoneville, Miss.
" "	B. F. Smith	(581-6)	" "
		(5796-8)	
Diamond Creek Watershed	Charles W. Gutsch	(2996-7)	Burdick, Kansas
Douglas County Commission	Arthur A. Heck	(1625)	Lawrence, Kansas
Douglas Cnty. Kaw Drainage Dist.	Wesley E. Bruen	(1625)	Lawrence, Kans.
Dravo Corporation	L. L. Struble, Jr.	(1181-4)	Pittsburgh, Penna.
		(2099-2103, 5393-5)	
Dresser Industries, Incorporated	T. Am M. Mott	(3142)	Dallas, Texas
Duck River Preservation	Raymond Duke	(2232-4)	Normandy, Tenn.
Duke & Ayres Inc.	Earl G. Evans	(3386)	Huntsville, Texas
Duncan Allen & Mitchell	Donald R. Allen	(DC I 131-40)	Washington, D.C.
East Banks Development Asso., Inc.	Larry Zagelow	(3618-9)	Almira, Washington
East Columbia Basin Irrigation Dist.	Van E. Nutley	(1153)	Othello, Washington

Other Organizations

E. Detroit Group for the Environment	Robert B. Carroll	(386-8)	Mt. Clemens, Mich.
East Mississippi Council	Gilbert E. Carmichael	(4993-8)	Mississippi
E. River Electric Power Coop., Inc.	Loren Zingmark	(DC I 163-5)	Madison, South Dakota
East Rutherford High School	James Woody	(1487)	Forest City, N. C.
Eastern Sierra Bowmen	C. R. Spitznagel	(1176)	Bishop, California
Eby, Martin K. Construction Co.	L. E. Laurion	(698)	Wichita, Kansas
Ecology Center		(3677-8)	Berkeley, Calif.
Ecology Club E. Texas State Univ.	Jim Miller	(1011-2)	Commerce, Texas
Ecology Coalition	Jim Jontz	(SL 247-55)	Bloomington, Ind.
Economy Boat Store Company	W. P. Wehking	(2287)	Wood River, Ill.
Edgebrook Veterinary Hospital, Inc.	Charles T. Schenck	(954)	E. Brunswick, N. J.
Education Service Center	M. W. Schlotter	(2779)	Huntsville, Texas
Edwards, Seigfreid, & Runge	G. Andy Runge	(376)	Mexico, Missouri
Eel River Water Council	Jerald R. Butchert	(SF II 104-9)	Santa Rosa, Calif.
		(5528-40)	
Elberton Star, Incorporated	R. L. Williford	(1793-4)	Elberton, Georgia
Environmental Action Council of Mem.	S. Henry Hall	(404)	Memphis, Tenn.
Environmental Asso. of Delaware and Otsego Counties		(749)	Oneonta, New York
Environmental Clearing House	Ann Thomas	(4027-30)	Toledo, Ohio
Environmental Editor	Hartt Wixom	(189)	Salt Lake City, Utah
Environmental Editor Coordinator	Deonne Orvis	(185)	Burnt Hills, N. Y.
Environmental Preservation	Henry M. Weber	(682-4)	Auinta, California
Environmental Quality Committee	J. J. Greer	(1095)	Norman, Oklahoma
Environments Corps St. Louis U.	Frank R. Vozak	(SL 46-48)	St. Louis, Missouri

Other Organizations

Farmers State Bank of Madison	Tom M. Thorn	(4031-2)	Madisonville, Texas
Fingal Wildlife Club	David Gruman	(3302)	Fingal, North Dakota
" " "	A. John Weber	(3302-3)	Fingal, N. Dak.
First Federal Savings & Loan Asso.	Jade Willagferr	(1484)	Arkansas City, Kans.
First National Bank	P. H. Cauthan	(2825-6)	Trinity, Texas
" " "	J. K. Creecy	(2678)	Kemp, Texas
" " "	Nat J. Davis	(2375-6)	Huntsville, Texas
" " "	J. H. Fennal	(2186)	Muskogee, Okla.
" " "	Gale A. Graham	(2033)	Joplin, Missouri
" " "	Robert D. Hardy, Jr.	(4262)	Huntsville, Texas
" " "	Herbert Hoech	(2886)	Huntsville, Tex.
" " "	Ronald J. Mitchell	(3504-5)	" "
" " "	C. M. Newton, Jr.	(3969)	Dawson, Texas
" " "	Datus Sharp, Jr.	(3576-7)	Madisonville, Tex.
" " " of Cleveland, Okla.	Glenn M. Cook	(422)	Cleveland, Okla.
" " " of Corsicana	W. D. Wyatt	(DC III 28-31)	Corsicana, Texas
First National Bank of Lubbock	A. C. Verner	(1675)	Lubbock, Texas
" " " " "	Don Workman	(1341)	Lubbock, Tex.
" " " " "	Lee F. York	(1489)	" "
First National Bank of Wichita	C. Q. Chandler	(3636-8)	Wichita, Kansas
First State Bank	J. C. McSpadden	(2494)	Livingston, Texas
Flathead Wildlife, Inc.	Wayne E. Herman	(784)	Kalispell, Mont.
Flood Control & Water Conservation	J. E. Taylor	(3293-5)	Martinez, Calif.
Flood & Erosion Control Board	Van Kaufman	(4036-7)	Ridgefield, Conn.
Fla., Ports & Water Resources Asso.	Stephen M. Richards	(SL 449-50) (5469-70)	Tampa, Florida
Fly Fishermen for Conservation, Inc.	Stuart L. MacChesney	(1695-7)	Fresno, California

Other Organizations

Four Rivers RC&D Area	Paul Thais	(1881)	Bruceville, Indiana
Frank Kirn Associates	Frank R. Kirn	(3046-51)	W. Lafayette, Ind.
Fresno Co, Board of Supervisors	Carl H. Melom	(5455-8)	Fresno, California
Fresno Irrigation District	Florence L. Carter	(3632-3) (4192-3, 5490-1)	Fresno, Calif.
Garnett Reservoir Association	Clarence Baffery	(3689)	Richmond, Kansas
" " "	Hubert J. Lickteig	(3680)	" "
" " "	Clayton Whetstone	(3689)	" "
Gee & Jenson Consulting Engineers	H. C. Gee	(DC II 206-18)	W. Palm Beach, Fla.
General Building Maintenance Co.	Donald J. Erler	(4234)	Donald J. Erler
General Portland Cement Company	Charles Raper	(2768-9)	Dallas, Texas
Gill County Wildlife Association	Ray Nitz	(1150-1)	Gaure, Montana
Gnaw Bone Camp	Frederick G. Lorenz	(4767)	Nashville, Indiana
GPU Service Corporation	Shepard Bartnoff	(3711-3)	Parsippany, N. J.
Grand River Basin Protective Assn.	John H. Dabbert	(2679-81)	Parma, Michigan
Great Lakes Commission	Leonard J. Goodsell	(5570-81)	Ann Arbor, Michigan
Gregory Drainage District	Wallace Carskadon	(4189-91)	Lewis & Clark C., Mo.
Grindstone-Lost-Muddy Creek	Clay McMillan	(3914-5)	Maysville, Missouri
Gulf Intracoastal Canal Assn.	Dale Miller	(3118-22)	Washington, D. C
H. C. & Joe Bouldin	H. C. Bouldin	(809)	Rogersville, Missouri
H. Strauss & Son, Incorporated	Saul A. Mintz	(3946-7)	Monroe, Louisiana
Hamlin Board of Community Devl'p.	Peggye Bonds	(1280)	Hamlin, Texas
Hank Bruns Company	H. Bruns	(5220-4)	Atlanta, Georgia
Harborview Medical Center	Nathan J. Smith	(4538)	Seattle, Washington
Harrell-Dial & Rader	R. D. Harrell	(2714)	Palestine, Texas
Helm & Budinger	Wayne K. Lemieux	(5447-8)	Studio City, Calif.

Other Organizations

High Country News	Thomas A. Bell	(4646-7)	Lander, Wyoming
Hines Incorporated	James R. Hines	(3438-41)	Bowling Green, Ky.
Holland Glass & Manufacturing Co.	Richard H. Holland	(4291)	Hickory, North Car.
Holston Valley Conservation Congress	L. Powell Foster	(112)	Kingsport, Tenn.
Home State Life Insurance Company	Paul Mann	(575)	Wichita, Kansas
Hotel Sheraton-Peabody	W. M. Smith, Jr.	(2580-4)	Memphis, Tenn.
Howard County Council for Environmental Quality, Incor.	Constance Finney	(2398)	Ellicott City, Md.
Idaho Water Users Association	Jack A. Barnett	(4641-3)	Boise, Idaho
Illinois Planning and Cons. League		(3140-1)	Chicago, Illinois
Indianapolis Water Company	Marice Stout	(DC III 107-18)	Indianapolis, Indiana
Industrial Development and Port Plng.	Duane Orr	(4483-7)	Corpus Christi, Tex.
Industrial Properties Corporation	John M. Stemmons	(4837)	Dallas, Tex.
Interested in Saving Southern Utah's Environment (ISSUE)	Lloyd Gordon	(178)	Cedar City, Utah
International Business Financial & Environmental Service	William A. LaMene	(164-5)	Adelphi, Maryland
Iowa Wildlife Federation	William M. Kornman	(2316-7)	Burlington, Iowa
Irrigation Districts Assn. of Calif.	Robert T. Durbrow	(4228-9)	Sacramento, Calif.
Jacksonville Port Authority	R. C. Peace	(4488, 5744)	Jacksonville, Fla.
Janico Builders, Incorporated	James Rand	(3562)	Kaufman, Texas
Jasper County Development Assn.	H. Wayne Hackney	(3769)	Joplin, Missouri
Johnson, Markham P. & Associates	Markham P. Johnson	(406)	Tulsa, Oklahoma
Kalamozoo Downstreamers	Sally Pyne	(3254-5)	Portage, Michigan
Kansas Bankers Association	Max Dickerson	(1503-9)	Topeka, Kansas

Other Organizations

Kansas City Flood Protection Planning Committee	J. B. Dillingham	(5406)	Kansas City, Missouri
Kans. State Bank & Trust Company	Kenneth E. Johnson	(2245-6)	Wichita, Kansas
Kaskaskia Industrial Dev'lp. Corp.	Albert A. Wilson	(1580, 1795)	New Athens, Illinois
Kaufman County Electric	Ray Raymond	(2537)	Kaufman, Texas
Kaw Basin Water Mangement Assn.	George T. Falher	(1625)	Lawrence, Kans.
Kaw Lake Association Incorporated	Ellsworth Rains, Jr.	(849-50)	Ponca City, Oklahoma
Kern County Water Agency	W. C. Bryant	(128104)	Bakersfield, Calif.
Kickapoo Creek Csrvncy. District	Walter L. Killin	(3045)	Pine Village, Indiana
Kickapoo Valley Association Inc.	Bernard Smith	(2328)	LaFarge, Wisc.
Kiefer-Stewart Company	David Moxley	(3957)	Indianapolis, Ind.
Kokomo Tribune	Kent Blacklidge	(155-56)	Kokomo, Indiana
Kresge Hearing	James E. Pough, Jr.	(2908)	Ann Arbor, Michigan
La Plata Water Conservancy Dist.	Victor A. Paulek	(5144-5a)	Colorado
Lafayette Environmental Protection Action Federation	Joe Wick	(5370-1)	West Lafayette, Ind.
Lake County Conservation Council	William E. Burleigh	(3623)	Tavares, Florida
Lake County Flood Control	Williard D. Hansen	(1374-7)	Lakeport, Calif.
Lake Providence Port Cmmssn.	Geo S. Lensing	(3484-5)	Lake Providence, La.
Lake Wylie Improvement Assn.	Guy Dubuc	(2389)	Rock Hill, S. C.
Landmark Products	Martin M. Seldon	(74)	Sunnvale, California
Latter Day Saints	Walter N. Johnson	(5424)	Independence, Mo.
Lester E. Cox Medical Center	Robert L. Lovett	(1411)	Springfield, Missouri
Life Insurance Company of La.	Virginia K. Shehee	(2781)	Shreveport, La.
Little Calumet River Basin Comm.	Charles A. Froman	(2982-4)	Highland, Indiana

Other Organizations

Little Miami Incorporated	Ray M. Culter	(818-21)	Lebanon, Ohio
Little Miami Valley Development	J. E. Carnahan	(2953-4)	Blanchester, Ohio
Little Miami Valley Development Assn.	J. E. Carhahan	(5704-5)	Blanchester, Ohio
Little Walnut Creek Conservancy	Tom Ruark	(1755)	Greencastle, Ind.
Long Branch Reservoir Association	Tom Briggs	(624)	Macon, Missouri
Los Angeles County Flood Central Dist.	A. E. Brunigton	(4661-3)	Los Angeles, Calif.
Louisiana Coastal Commission	Herbert A. Hamilton	(1309)	Lafayette, Louisiana
Loup Power District	Max E. Kiburz	(1538-9)	Columbus, Nebraska
Lower Tule River Irgtn District	F. R. Miller	(5506-7)	Woodville, California
Lower Yazoo River Basin District	Burkett H. Martin	(1544-5)	Yazoo City, Miss.
McAlister Insurance	W. R. McAlister	(2744)	Anahuac, Texas
McLeansboro Kiwanis Club	Edgar Satterfield	(1490)	McLeansboro, Ill.
Mabank Nursing Home	B. N. Hall	(3409)	Mabank, Texas
Mackenzie & Jungroth Law Offices	James R. Jungroth	(604)	Jamestown, N. Dak.
Macon-Bibb County Plang. & Zoning	Craig W. Linelow	(408-9)	Macon, Georgia
Madera Co. Board of Supervisors	Patrick J. Daley	(5717-21)	Madera, California
Manager, City	Allan R. Schell	(2227)	Merced, California
Management District	F. Archbold	(2654)	Casselton, N. Dak.
Marais des Cygnes Valley	Russell L. Crites	(1355)	Ottawa, Kansas
Marc Products Company	Arthur L. Spietz	(1175)	Chicago, Illinois
Marine Affairs & Navigation Confer.	Robert H. Langner	(SF II 228-32)	San Francisco, Calif.
Marine Construction	Gene W. Martin	(1137, 1138)	Deerfield Bch., Fla.
Maryland Port Administration	J. L. Stanton	(4019)	Baltimore, Md.
Massachusetts Wildlife	Ted Williams	(1049)	Field Headq'trs., Westboro
Matthews, Procter Law Offices	David G. Gray	(626-7)	Nashville, Tennessee

Other Organizations

MAVDA Incorporated	D. W. Pray	(3243-52)	Wichita, Kansas
Memphis & Shelby County Port Com.	Paul R. Sheffield	(855-7)	Memphis, Tenn.
" " " " "	Frank T. Stegbauer	(4955-57)	" "
" " " " "	" "	(4964-6, 5113)	" "
Merced County Brd. of Supervisors	E. G. Nordman	(3519)	Merced, California
Merced Irrigation District	Kenneth R. McSwain	(1698)	" "
Meremec Basin Assn.	James F. Gamble	(SL 65-9)	Kirkwood, Missouri
Metro Sanitary District	Richard Lanyon	(DC III 325-330)	Chicago, Illinois
Metropolitan Water District	Robert P. Will	(5372-5)	San Francisco, Calif.
Michigan Grand Rvr. Watershed Coun.	John H. Kennaugh	(1404-1388)	Lansing, Michigan
Michigan United Conser. Club	James A. Reynolds	(432)	Scotts, Michigan
Mid-America Transportation Co.	Willard B. Fouts	(5409-11)	St. Louis, Missouri
Midcontinent Farmers Assoc.	Fred V. Heinkel	(3863)	Columbia, Missouri
Middle Creek Watershed	Paul J. Koegeboehn	(2737)	Elmdale, Kansas
Midwest Auto Stores	Robert A. Hausam	(1529)	Sedalia, Missouri
Midwest Elec. Consumers Assn.	Fred G. Simonton	(SL 274-84)	Denver, Colorado
Mill Creek Committee-Putnam Cnty.	Dale Harrah	(1832)	Cloverdale, Indiana
Miller, Richard Agency	C. Richard Miller	(5671)	Seattle, Washington
Minnesota	Grant J. Merritt	(3114-5)	Minneapolis, Minn.
Mo-Ark Water Resource Pongros	Lew Paramore	(SL 120-30)	Kansas City, Kansas
Monrae County Field & Stream	Charles Wheaton	(438)	Paris, Missouri
Montana Grain Growers Assoc.	Jim Stephens	(1975)	Carter, Mont.
Moore & Peterson	Herbert Moore	(4421-76)	Milwaukee, Wisconsin
Morgan & Shumpert	Jack C. Morgan	(2507)	Kaufman, Texas
Mt. Nittany Sportsmans Club	John J. Archer	(4134)	State College, Pa.
Mtn Fork Watershed Assn.	Coy A. Chatham	(4205-7)	Smithville, Okla.
Moxley Hall Herefords	Tom J. Moxley	(4481)	Council Grove, Kansas

Other Organizations

Nalle Clinic	L. G. Gage, Jr.	(5308)	Charlotte, N. C.
Nampa Rod & Gun Glub	Ed. McLaughlin	(3913)	Nampa, Idaho
Nashua River Watershed Assn.	Hugh F. Stoddart	(1177)	Groton, Mass.
Nature-Science Museum	Linda C. Arnold	(2336-7)	Winston Salem, N. C.
Nebraska Water Resources	L. E. Donegan	(2386-7)	Lincoln, Neb.
Nilo Barge Line Incorporated	Myrle E. Midgley	(4747-5)	St. Louis, Missouri
No. American Habitat Preserv. Socty	R. Doyle Grabarck	(193)	Adelphi, Maryland
North Fort Worth Bus. Association	W. R. Porterfield	(2529)	Ft. Worth, Tex.
No. Oil Incorporated	Larry E. Moss	(371)	Pacific Palisades, Calif.
North & South Rivers Watershed Assn.	John X.	(225-32)	North Scituate, Mass.
Northeast Public Power Association	Robert W. Feragen	(2028-9) (4989-90, 5142-3)	Concord, Massachusetts
Northeastern Oklahoma Sportsman C.	Ray Birchler	(3348)	Miami, Oklahoma
Northern Environmental Council	Milton E. Pelletier	(1963-9)	Duluth, Minnesota
" " "	John Satterlee	(1953-62, 5672-5)	" "
Northwest Conservation Rep.	Brock Evans	(176-7)	Seattle, Washington
Northwest National Bank	Roy R. Mitchell	(2503)	Dallas, Texas
NW Students for Better Environment	Hal Bohner	(4650-1)	Evanston, Illinois
NW Water Council	Wesley Signs	(DC III 316-20)	Steamboat Spgs. Colo.
Northwestern Electric Cooperative		(2648)	Woodward, Oklahoma
Oak Ridge National Laboratory	W. Carter Johnson	(520-1)	Oak Ridge, Tenn.
Oakley Oil Company	B. B. Oakley	(2761)	Terrell, Texas
Ogletree Company	Ben R. Ogletree	(3225)	Livingston, Texas
Ohio Valley Improvement Assoc.	Wm. H. Hull	(DC III 65-75) (5234-7) (5077-80)	Cincinnati, Ohio

Other Organizations

Oil Transport Company, Inc.	William C. McNeal	(1221-2) (1417-9)	New Orleans, La.
Oklahoma Allergy Clinic	Robert S. Ellis	(1358) (2172)	Oklahoma City, Okla.
Oklahoma City Federal Svg. & Loan As.	Russ Miller	(2171)	" " "
Oklahoma National Bank & Trust Co.	President	(2196)	Chickasha, Oklahoma
Oklahoma River Basin Survey Project	Charles L. Rohrbaugh	3998-4000)	Norman, Oklahoma
Open Lands Projects	Helen Meier	(3929-45)	Chicago, Illinois
Oregon Student Public Interest Research Group	Jerry Parker	(5338-43)	Portland, Oregon
Orleans Levee Board	R. Bollinger	(1350-2)	New Orleans, La.
Osler Clinic	L. W. Ghormley	(3399-400)	Blackwell, Oklahoma
Ozark Gateway Regional Plng. Com.	Jack L. Williams	(4627)	Joplin, Missouri
PBQ & D Incorporated	Francis W. Montanari	(SF I 64-81)	San Francisco, Calif.
Pacific Northwest Utilities	Howard C. Elmore	(SF II 118-22)	Wenatchee, Washington
Pacific NW Waterways Association	H. Calvert Anderson	(SF II 170-73)	Walla Walla, Wash.
Palatine Environmental Cont. Board	Wayne C. Browning	(983)	Palatine, Illinois
Palestine Herald Press	Wayne C. Sellers	(2571)	Palestine, Texas
Paul Murrey Motor Company	Paul Murrey	(3138)	Kaufman, Texas
Penna. Federation of Sportsmen's Club	Carl C. Rosser	(616)	Williamsport, Penna.
Peoria Sportsmans Club	Elmer D. Hills	(2885)	Manito, Illinois
Percy Mitchell Agency	R. S. Mitchell	(3123)	Kaufman, Texas
Pickett & Pickett	Edward B. Pickett	(3980)	Liberty, Texas
Pixley Irrigation District	J. W. White	(2806-7) (5504-5)	Pixley, California
Polk County Publishing Company, Inc.	Billy C. Dove	(5294)	Livingston, Texas
Port of Chelan County	Richard C. Harris	(3853-4)	Wenatchee, Wash.
Port of Corpus Christi	Duane Orr	(DC III 436-40)	Corpus Christi, Tex.

Other Organizations

Port of Oakland	Ben E. Nutter	(3972-4)	Oakland, California
Port of Portland	A. M. Eschbach	(1359)	Portland, Oregon
Putnam County	Raymond B. Bunton	(1286-7)	Palatka, Florida
Port of San Francisco	Miriam E. Wolff	(4631-3)	San Francisco, Calif.
Port of Seattle Commission	J. Knox Woodruff	(1236)	Seattle, Washington
Port of Walla Walla	J. H. Beddow	(1465)	Walla Walla, Wash.
Port of Whitman County	L. J. Lothspeich	(628)	Colfax, Washington
		(5121)	
Porter County Conservation Club	Carol Semento	(4011)	Valparaiso, Indiana
Preservation of Whiteoak	A. A. Tietig	(762)	Bethel, Ohio
Project 21 Open Space	Ron Yeo	(4071-2)	Irvine, California
Provident Investment Company	R. L. Dillard, Jr.	(3384)	Dallas, Texas
Randall RC&D Project	Steve Sedlacek	(240)	Lake Andes, S. Dak.
Randolph County Drainage Board	Merl K. Robbins	(1752)	Winchester, Indiana
Rapides Wildlife Association, Inc.	John C. Moser	(510-1)	Alexandria, Louisiana
Rappahannock Defense Commission		(3964-8)	Fredericksburg, Va.
Red Cedar-Donane Creek Prot. Group	J. R. Brunner	(1899-1900)	Williamston, Michigan
Red River Valley Association	Calvin T. Watts	(1042-4)	Shreveport, Louisiana
		(5118-20)	
Regional Planning Council	Robert Young	(3614-7)	Baltimore, Maryland
Reinl, Lockwood & Knox	Harold A. Lockwood	(3894-5)	Philadelphia, Penna.
Republic National Bank	C. B. Leterson, Jr.	(2905-6)	Dallas, Texas
Research Tringle Institute	Gondon N. Mitchell	(1851-2)	Res. Triangle Prk., N.C.
Rescue the Rouge Cleanup, Inc.	Tom McPhail	(5566)	
Research Triangle Group	Joan Willey	(875)	Raleigh, N. C.
Resources, Incorporated	Leslie E. Mack	(5327-35)	Little Rock, Arkansas

Other Organizations

Richardson Company of Oregon Ltd.	Kaye Richardson	(1949-50)	Falls City, Oregon
Richland County Water Mgmt. Dist.	Holger Bertelsen	(4482)	Wahpeton, N. Dak.
" " " " "	Aaron H. Heglie	(4482)	" "
" " " " "	LaVerne K. Olson	(4482)	" "
Riggs Tractor Company	J. A. Riggs	(1750)	" "
Ripfly Harris Plumbing Heat & Refrig.	Ripfly Harris	(2195)	Mangum, Oklahoma
River Defense	Terry Flannagan	(SF II 110-7)	Corrales, New Mexico
Riverdale Park Civic Association	Ernest J. Forster	(5563-5)	Detroit, Michigan
Riverport Authority	Alex S. Chamberlain	(1293-4)	Louisville, Kentucky
Robe Agency, Incorporated	Lyle A. Robe	(433)	Arkansas City, Kans.
Rock Creek Watershed	Malcolm D. Casey	(4204)	Council Grove, Kans.
Rocky Mountain Center on Environ.	Roger P. Hansen	(3775-8)	Denver, Colorado
Rogue Basin Flood Control	William J. Jess	(SF I 153-6)	Eagle River, Ore.
Ross, Holtzendorff, & Bond Law Offic.	R. B. Holtzendorff	(1107-8)	Oklahoma City, Okla.
Rural Electric Association Inc.	John E. Olson	(5494-A)	Pierre, South Dakota
Rutherford Junior Woman's Club	Sandra K. Boyr	(4179-80)	Rutherford, New Jersey
Sabine River Authority of Texas	Sam F. Collins	(DC II 282-93)	Newton, Texas
Sacra. Valley W. S. Canal Assoc.	Shan Patterson	(3979)	Woodland, California
Salmon River Canal Company Inc.	Elmer Parrott	(SF II 268-70)	Twin Falls, Indiana
" " " " "	Lloyd J. Webb	(SF II 266-7)	" " "
Sand Lake Refuge	Linda R. Waldstein	(242-3)	South Dakota
Samuel & Samuel	R. E. Samuel, Jr.	(4007)	Madisonville, Tex.
San Bernardino County Flood	W. A. Sidler	(SF II 212-20)	San Bernardino, Calif.
San Francisco Ecology Center	Betsy Flack	(2399-2413)	San Francisco, Calif.
Sargent Co. Water Management Dist.	Ole Breum	(2210)	Forman, N. Dak.

Other Organizations

Sargent County	Frank Chesley	(2223)	Forman, N. Dak.
Saunders Food Brokers	William A. Saunders	(5353)	Little Rock, Ark.
Savings & Loan Association	R. L. Kenderdine, Jr.	(2729)	Palestine, Texas
Scenic Salt Creek Valley Association	Robert Tatman	(761) (3290-2, 4559-61)	Londonderry, Ohio
Schiele Museum of Nat'l History	Richard A. Stout	(1033-4)	Gastonia, N. C.
Schoharie VECA Incorporated	Estell Smith	(1774-5)	Middleburgh, N. Y.
Schumann Engineering Company	Max A. Schumann, Jr.	(1875)	Midland, Texas
Sew. Chevrolet Company	James H. Sewell	(4789)	Coldspring, Texas
Shaft, Incorporated	Eugene P. Cornett	(3642-9)	Noblesville, Indiana
Sharon Conservation Commission	Edward W. Hutchinson	(1670-1)	Sharon, Connecticut
Shasta Company Brd. Springs	Robert W. Deitz	(SF II 275-6)	Redding, California
Shoals News	Sanford A. Deckard	(3664-5)	Shoals, Indiana
Silver Creek Watershed	Howard C. Wood	(2292-3)	Cedar Point, Kansas
Simp Company	Donald M. Meisner	(2993-4)	Sioux City, Iowa
Sioux Sporting Goods	Jim Thompson	(1978)	Bismarck, N. Dak.
Smoky Mountain Hiking Club	H. R. Payne	(2905-6)	Knoxville, Tenn.
Sonoma County Coalition	Iva Warner	(SF II 207-11)	Santa Rosa, Calif.
Sonoma Water Agency	Gordon Miller	(SF II 288-90)	" " "
Southeast River Basins	J. W. Woodruff, Jr.	(5256-70)	Atlanta, Georgia
Southern Illinois University	Student Environ. Ctr.	(5471)	Carbondale, Illinois
Southern Pacific Land Company	W. F. Herbert	(1917)	San Francisco, Calif.
Southern Pacific Rod & Gun Club	A. J. Anconetani	(2812)	San Francisco, Calif.
Southern Wisconsin Wetlands Assn.	James R. Swerame	(2329)	Madison, Wisconsin
Southland Life Insurance Company	James B. Goodson	(2843-4)	Dallas, Texas
Southwestern Water Conservation	D. Lewis Williams	(5247-50)	District of Colorado
Springfield Office Supply Incor.	Gene Powell	(3238-9)	Springfield, Missouri

Other Organizations

Staudis Book Supply	Pete Staude	(SL 70)	Herman, Missouri
Stayton, Maloney, Black	Thomas B. Cowden	(111)	Austin, Texas
Stecher Mortuary Incorporated	Franklin Stecher	(2649)	Woodward, Oklahoma
Steele County Commissioners	Frank Kloster	(1926)	Finley, North Dakota
Steele County Water Management Com.	Bennett Rindy	(1751)	Finley, N. Dak.
St. Francis Levee District	Burrell B. Fair	(3389-90)	W. Memphis, Ark.
Stover & Crouch Insurance Co.	L. B. Stover	(4021)	Madisonville, Texas
St. Paul Mssnyr Baptist Church	Rev. Harold R. King	(3454)	Ennis, Texas
Strong City State Bank	Rex. R. Denham	(3666-7)	Strong City, Kans.
Students for Environ. Action	Josef J. Walker	(207)	Kansas City, Missouri
Sterick Bldg., Southern Lumber	George C. Romeiser	(81)	Memphis, Tennessee
S. Life Insurance Company	W. Neil Johnson	(3875)	Dallas, Texas
Southwestern Water Consv. Dist.	D. Lewis Williams	(5247-50)	Colorado
Sunkist Oranges, Lemons, Avocados	Wesley Pinkerton	(532)	Santa Paula, Calif.
SW Idaho Development Association	Edward Parsons	(SF II 63-66)	Boise, Indiana
Swan Citizens Conservation Council	Edward L. Foss	(497)	Condon, Montana
Sweetwater Dry Lake Wtr. Mgmt. Dis.	Gordon Berg	(2347-8)	Devils Lake, N. Dak.
T. L. Herbert & Sons, Incorporated	James A. Skinner, Jr.	(1230-2)	Nashville, Tennessee
Tampa Port Authority	Clint Brown	(2003-5)	Tampa, Florida
Tehachapi-Cummings Cnty. Water Dist.	Robert J. Jasper	(1384)	Tehachapi, Calif.
Tehama Co. Flood Control & Wtr. "	Lawrence A. Coleman	(2396)	Gerber, Calif.
Teknekron Incorporated	S. Jewell	(3446-9)	Berkeley, Calif.
Tenn. Committee for Wilderness Pre.	William L. Russell	(1557-60)	Oak Ridge, Tenn.
Terrell State Bank	Edward M. Griffith	(2879)	Terrell, Texas
Texas Committee on Natural Res.	Edward C. Fritz	(1089-93)	Dallas, Texas
Texas Conservation Council, Inc.	L. N. Dexter	(2228-9)	Houston, Texas

Other Organizations

Texize Chemicals Incorporated	William P. Wilson	(2606)	Greenville, S. C.
Thomas McGee and Sons	William D. Brewster	(1897-8)	Kansas City, Mo.
Thorne Ecological Institute	T. P. Tschinkel	(2591)	Boulder, Colorado
Toledo Naturalists	Neil Waterbury	(2596-9)	Toledo, Ohio
Traill Co, Board of Cnty. Commrs.	Milton Eliason	(2025)	Hillsboro, N. Dak.
Traill City Drain Board	Chairman	(2785)	Hillsboro, N. Dak.
Transportation Institute	Bertram Gottlieb	(1913-4)	Washington, D. C.
Tri-County (Irrigation Dist. Assn.)	Ken Fuhrman	(825-6)	Carrington, N. Dak.
Trinity Improvement Assn.	A. G. Carter, Jr.	(DC III 264-7)	Ft. Worth, Texas
Trinity River Authority of Texas	J. M. Scott	(DC III 268-76)	" " "
Tulare Lake Basin Wter. Stor. Dist.	Louis T. Robinson	(1556)	Corcoran, California
Tulsa Federal Svgs. & Loan Assoc.	Donald E. Ingle	(726-7)	Tulsa, Oklahoma
Tulsa Port of Catoosa	Harley W. Ladd	(653)	Catoosa, Oklahoma
Umpqua Watershed Resource	George C. Stubbert	(SF II 161-9)	Sulkerlin, Oregon
Uncompahgre Valy Water Users	Harold C. Anderson	(DC III 53-6)	Montrose, Colorado
United Water Conservation	Richard A. Smith		Santa Paula, Calif.
Universal Merchandise Co., Inc.	Sam Ropchan	(2084)	Fort Wayne, Ind.
Upper Co. River Commission	Ival V. Goslin		Salt Lake Ciyt, Utah
Upper Crow Creek Watershed Dist.	A. William Spiry	(3579)	Britton, S. Dak.
Upper Miss. River Consv. Committee	Jerome Kuehn	(1839-41)	Davenport, Iowa
Upper Miss. Waterway Association	Dean K. Johnson	(4306-11)	Minneapolis, Minn.
Upper Ohio Valley Association	Harold H. McLean	(3064-04)	Pittsburgh, Penna.
Ventura County Flood Control Dist.	A. P. Stokes	(5232)	San Francisco, Calif.
Vermillion County Area Plan Com.	Harold Reichers	(3266)	Newport, Indiana

Other Organizations

Vermillion Cnty Dept. Prks & Rec.	Eugene Ray	(3265)	Newport, Indiana
Vermillion County	Charles Farnsworth	(2977)	Newport, Indiana
Vernon Forks Conservancy Dist.	Marvin H. France	(2699-701)	North Vernon, Ind.
Ventura County Flood Control	A. P. Stokes	(5232)	San Francisco, Calif.
W. A. Wahler and Associates	Jack G. Wulff	(1799)	Palo Alto, California
Wabash Valley Association	Marvelle Wigger	(1792)	Winchester, Indiana
Wabash Valley Association	Joe McGuire	(DC III 142-53)	Mt. Carmel, Illinois
" " "	William J. Hull	(5775-92)	" " "
Wabash Valley Association	John W. Dooley	(SL 51-2)	Mattoon, Illinois
Wabash Valley Intrst. Association	Charles A. French	(SL 201-5)	Fairfield, Illinois
" " " Commission	G. D. Gettinger	(DC III 76-81)	Terre Haute, Indiana
Warren County Park District	Richard W. Workman	(763-4)	Lebanon, Ohio
Warrensburg Prod. Credit Assn.	Clarence Bailey	(3327)	Warrenburg, Mo.
Warrior-Tombigbee Develop. Assn.	C. M. Kilian	(1685)	Birmingham, Ala.
Wash. County Environmental Council	Thomas Rosenberger	(2324-5)	Fredonia, Wisconsin
Wash. Fly Fishing Club	Robert L. Sincock	(4534)	Seattle, Washington
Water Engineering & Operations	H. Shipley	(1462)	Phoenix, Arizona
Water Management Board	Gilman Wastvedt	(2119)	Hillsboro, N. Dak.
Water Management & Cont. Board	Art Thoraldson	(1882)	Grand Forks, N. Dak.
Water Quality Committee	James B. Harper	(3846)	Philadelphia, Pa.
Water Resources Association	Robert L. Shortie	(5497)	New Orleans, La.
Water Resources Authority	David C. Yaeck	(4812)	Orlando, Fla.
Water Res. Council Federal Bldg.	Ruben S. Ayala	(4636-8)	San Francisco, Calif.
Water Ushers Association of Fl Inc.	Riley S. Miles	(3494)	Kissimmee, Florida
Watershed Association Incorporated	Geryl S. Cole	(391)	No. Scituate, Mass.
Waterway Operations Conference	C. F. Lehman	(SL 265-70)	Jeffersonville, Ind.

Other Organizations

Waterways Association of Pittsburgh	George D. Douglas	(3671-4)	Pittsburgh, Pa.
Waterways Journal	James V. Swift	(1475-8)	St. Louis, Mo.
Wells County Water Mgmt. District	Arthur G. Gunderson	(4521)	Fessenden, N. Dak.
Wells County Water Management Dist.	Norman Rudel	(4521)	" " "
West Boggs Creek Maint. District	Wayne Walton	(4043-4)	Loogootee, Ind.
West Texas Water Resources Comm.	W. H. Rampy	(1745)	Ballinger, Texas
Western Montana Fish & Game Assn.	James N. Brogger	(216-7)	Missoula, Montana
Western Mont. Fish & Game Assoc.	James N. Brogger	(5130)	" "
" " " " "	William P. Cunningham	(270)	" "
Wet Walnut Creek Watershed Joint District No. 58	Warren E. Stone	(1178)	LaCrosse, Kansas
Whatcom County Planning Comm.	Roger J. Almskaar	(3686-7)	Bellingham, Wash.
Whitewater Valley Conservancy Dist.	Floyd E. Howard	(1530-1)	Richmond, Indiana
Wilbourn S. Gibbs General Invest.	W. S. Gibbs	(3764)	Huntsville, Texas
Wilson & Wilson Attorneys at Law	Steward R. Wilson	(1796)	Elko, Nevada
Windham & Sons Incorporated	J. M. Windham	(3307)	Livingston, Texas
World Trade Center	Melvin Shore	(1170-1)	West Sacramento, Calif.
Wyncote Bird Club	John Green Jr.	(3403-4)	Philadelphia, Pa.
Wyoming Outdoor Coordinating Coun.	Keith V. Becker	(2923-41)	Lander, Wyoming
Xakima River Watershed	E. F. Doncaster	(2837)	Sunnyside, Washington
Zimmer-Ernst Associates	James R. Ernst	(990)	St. Louis, Missouri
West Side Area Vocational Tec. School	No Name	(3332, 3273-74)	Kingston, Penna.
Buck Cully Rocky Mountain Conservation	" "	(3652)	Albuquerque, N. M.

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Individuals

Alabama

Applebaum, Judy	(2214)	Birmingham
Arnett, Gussie	(2214)	"
Battle, L. N.	(2662)	Midfield
Bourne, John R.	(4176)	Florence
Brachman, Joan	(2214)	Birmingham
Brachman, R. W.	(2214)	"
Buchs, Mary J.	(2214)	"
Burgess, Dana L.	(2214)	"
Burnam, Denson Jr.	(2215)	"
Buroru, Linda	(2214)	"
Cartwright, Leona M.	(2214)	"
Casson, Barbara	(2214)	"
Cerruthers, Tom	(2215)	"
Clark, Kathryn P.	(2214)	"
Eudaly, Edwin M.	(3682-3684)	Auburn
Grubbs, David M.	(722-4)	University
Griffith, Harry A.	(4271-88)	Mobile
Harwik, Jill	(2214)	Birmingham
Heldman, A. W.	(2215)	"
Hinds, R. S.	(2214)	"
Huck, Lois L.	(345)	Tuskegee
Jackson, M. Virginia	(2215)	Birmingham
Jemison, John Jr.	(4753)	"

Langley, Andrea E.	(738-9)	Birmingham
Linder, Mildred F.	(2214)	"
Liz, D. B. Jr.	(2214)	"
McGuire, Kevin M.	(2215)	"
McKitrick, S. R. L.	(349-50)	Auburn
Miller, A. C.	(2214)	Birmingham
Morawitz, Mary J.	(2214)	"
Phillips, John F.	(2764)	Florence
Pittillo, Robert F.	(2214)	Birmingham
Pullian, Gregory	(2214)	"
Ramsey, J. S.	(264)	Auburn
Reid, E. G.	(2214)	Birmingham
Reid, Robert R.	(3565-3566)	"
Schoepfle Gordon M.	(2214)	"
Schoepfle, Esther S.	(2214)	"
Shaw, Samuel R.	(2572-74)	"
Taylor, H. M.	(2214)	"
Taylor, Lylea	(4562-4563)	Huntsville
Thigpen, H. B.	(2214)	Birmingham
Thigpen, P. L.	(2214)	"
Thomas, Kelley	(153)	Camden
Truett, Felix B.	(2214)	Birmingham

Alabama

Truett, Lisa V. W.	(2214)	Birmingham
Wahlquist, Harold	(2214)	"
White, David	(2288-89)	"
Wiggins, Lorna A.	(2290-91)	Auburn

Alaska

Nelson, Urban C.	(373)	Juneau

Arizona

Abbeif, Edward	(245)	Tucson
Baker, Virgil R.	(1278)	Tempe
Bennett, Barbara	(250-1)	Phoenix
Briney, William F.	(2819-20)	Prescott
Coshland, Robert L.	(82-103)	Tucson
Duckstein, Lucien	(3455-3475)	"
Hecht, William R.	(274)	Scottsdale

Arizona

Johnston, L. E.	(1537)	Yuma
Kerr, Barbara P.	(1124)	Phoenix
Kisiel, Chester C.	(3455-3475)	Tucson
Levy, J. J.	(3058)	Phoenix
Loe, Steve	(1931-2)	Prescott
Overby, Pat	(2266-7)	Phoenix
Overton, G. M.	(907)	Prescott
Pingry, Lillian	(5344-5)	Tucson
Pope, Edward R.	(947-9)	Flagstaff
Spencer, John J.	(3286)	Miami
Wickstrom, Karl T.	(2121)	Keams Canyon
Wild, Peter	(1192)	Tucson
Witzeman, Robert A.	(4058)	Phoenix

Arkansas

Archer, Laird	(1055)	Fayetteville
Bell, Helen	(2751)	"
Burleson, Murray V.	(3365)	Little Rock

Arkansas

Clark, Joe M.	(2224)	Fayetteville
Clark, Robert H.	(3373)	Bella Vista
Cremen, Charles J.	(1634-5)	Waldron
Dardin, Michael	(1356)	Yellville
Fleener, Elizabeth H.	(2751)	Fayetteville
Fleener, Mae B.	(2751)	"
Furst, Edward J.	(1367	"
Gaitley, Edward D. Jr.	(1825)	N. Little Rock
George, Harold R.	(2426 -7)	Mena
Greenberg, Carolyn	(1520)	Pine Bluff
Guhman, Carl W.	(3405)	Fayetteville
Harper, Russell	(998-999)	Gillham
Hedges, Harold C.	(2440)	Ponca
Heuston, John	(2442)	N. Little Rock
Hoyt, Arthur M. Jr.	(3444)	Conway
Jones, Mary T.	(2724)	Little Rock
Lewis, Golvia E.	(2751)	Fayetteville
Love, Almyra	(2751)	"
MacLean, Bernice V.	(2751)	"
May, Virginia B.	(2751)	"

Medart, Vivian	(2751)	Fayetteville
Meinert, Stella	(2751)	"
Miller, Jay S.	(2263-4)	Sheridan
Mitchell, Jean E.	(577)	Springdale
Nabholz, Bob	(2708)	Conway
Newitt, Marcia B.	(1859)	Rogers
Noyce, James R.	(1152)	Fayetteville
Palmieri, Martin F.	(2523)	Little Rock
Potts, Alma G.	(2751)	Fayetteville
Potts, S. R.	(2751)	"
Purdy, Hazel E.	(2751)	"
Reese, William G.	(1448)	Little Rock
Rodgers, Alice E.	(2082-3)	Harrison
Saladino, Mary B.	(1561)	Fayetteville
Shaw, Nelson	(1767-8)	Arkadelphia
Smith, Frank	(1026)	Little Rock
Schwieger, Sam	(1169)	Huntsville
Stern, Howard S.	(4545-6)	Pine Bluff
Thomson, Ben	(4034)	Little Rock
Thomasek, Daniel J.	(416)	"
Utley, Don W.	(1784)	Eureka Spgs.

Arkansas

Way, S. J.	(2751)	Fayetteville
Weaver, Barry R.	(3609)	Springdale
Wilson, Jo	(4057)	Fayetteville
Wilson, Steve N.	(4630)	"
Wise, Betty L.	(2751)	"
Wortz, Ed D.	(1488)	Ft. Smith
Yeich, Luella D.	(2751)	Fayetteville
Young, Ron K.	(2811)	N. Little Rock

California

Angelino, Alfred R.	(4133)	Gilroy
Asbill, Richard J.	(2338)	Redding
Ayers, Audrey F.	(1057)	Sonoma
Bacher, Fred A. Jr.	(1995)	Salinas
Bailey, John	(110)	San Fran.
Baker, Jim	(540)	Riverside
Barnard, Jean S.	(356)	Mill Valley
Barrette, Rod	(2294)	Los Angeles
Berns, J. S.	(1600)	Sunnyvale
Blair, Elizabeth A.	(357-59)	San Leaudro
Blechman, Sadie	(3551)	Sunnyvale
Bordeaux, Robert M.	(85-6)	Escondido

California

Bracher, Frederick	(343)	Pacific Grove
Briggs, Thomas S.	(SF II 377)	San Fran.
Cameron, James B.	(1071)	Oakland
Caratti, Paul N. Jr.	(3373)	Santa Rosa
Cates, Walter H.	(1289)	Arcadia
Cheeseman, Douglas	(1805)	Saratoga
Christoph, Charles	(389-90)	San Diego
Christoph, Marquerite	(389-90)	"
Cimino, Richard S.	(816-17)	Mt. View
Cobb, Jimmie M.	(SF I 82-107)	San. Fran.
Cortes, Maria A.		Richmond
Dean, Peter W.	(2833-4)	Brentwood
Duskin, Alvin	(56-59)	San Fran.
Ecology Action	(143)	Goleta
English, Noble L.	(2396)	Gerber
Farrow, George	(1652-3)	San Diego
Feldbaus, Patricia	(2694-5)	Chico
Fossett, Jack	(1366)	Visalia
Frederick, Lillie	(660-1)	San Fran.
Fries, Alice	(1513)	Valley Ctr.
Gerdes, H. George	(108-142)	Piedmont
Gerstung, Eric	(400)	Grass Valley
Ghilotti, Frank R.	(1656)	Stockton
Gilbert, John P.	(1519)	Tipton

California

Goguen Mary C.	(97)	Glendale
Goguen, Mary C.	(598-601)	Glendale
Gough, Joan	(2032)	Salinas
Graves, Edward C.	(113)	Carmel
Gray, Harriet J.	(1369-71)	McKinleyville
Griffin, Joseph D.	(2707)	Woodland
Guenther, Ronald L.	(1831)	Venice
Gulick, John N. Jr.	(2709-09)	San Fran.
Hardt, James V.	(997)	San Fran.
Harris, Shirley A.	(1378)	Upland
Harwood, Lester E.	(405)	Vista
Hauck, Roland L.	(238-244)	Sonoma
Haussler, Kenneth S.	(4825-7)	Sacramento
Henigan, Laurence P.	(5485-8)	Woodland
Hermsmeyer, Craig	(1379-80)	Cupertino
Hershdorfer, Gary A.	(5629-5635)	Berkeley
Hirshleifer, Jack	(4717-4734)	Los Angeles
Hoehn, Milton H.	(2240-2242)	Santa Rosa
Jett, Stephen C.	(1386)	Davis
Johnson, James A.	(100)	San Fran.
Johnston, Brian	(1006)	Berkeley
Johnston, Robert	(47-52)	Davis
Jones and Stromsness	(1976)	Dunsmuir
Jonkel, Theo	(1121)	San Fran.
Joseph, Herbert L.	(73)	Vallejo

Jumars, Peter A.	(2044)	San Diego
Karl, Fred W.	(256-58)	"
Kelley, H.	(92)	San Fran.
Kraemer, Burnice	(303)	Ventura
Kummel, Robert	(2463-64)	Pacific Palsad.
Lash, Joseph	(835)	Sacramento
Lawrence, Philip	(1135)	Daly City
Lawson, Gloria	(101-2)	San Fran.
Leonard, Richard M.	(1316)	"
Lindroth, Eric	(235)	Laguna Hills
McPhee, Nancy J.	(841)	El Solranto
McSweeney, Patrick	(1142)	San Fran.
MacRae, Diann	(3927)	Pacifica
Magwood, C. J.	(3105)	Glendale
Marino, Linda L.	(2066-2067)	Burlingame
Marten, Richard A.	(1700)	Los Angeles
May, Richard H.	(1703)	San Fran.
Miller, F. R.	(2754-55)	Woodville
Morley, Arthur	(612-613)	San Diego
Mueller, Angela	(2074)	Arcata
Noranbrock, Violet	(3517-18)	La Habra
O'Hara, Charles	(238)	San Fran.

California

Panek, Roger T.	(1018)	Mill Valley
Patchell, Docia T.	(1861-2)	Santa Rosa
Patterson, William D.	(1944)	Sacramento
Pavelchik, Tom	(1736)	Citrus Heights
Perelman, Michael	(5153-58)	Chico
Poland, Roscoe A.	(4502-04)	San Diego
Posner, Lawrence	(1020)	Mill Valley
Relis, Walter	(3567)	Santa Barbara
Reznick, Neva	(1326)	Arceta
Richardson, Peter	(43-46) (53-55)	Davis
Riley, Dave	(1868)	Stockton
Rodondi, Authur A.	(5227-8)	San Fran.
Royle, Marjorie H.	(4520)	San Diego
Rummelsburg, Arnold S.	(1456-7)	Bakersfield
Sanford, Marion L.	(2777)	Claremont
Sattler, William	(1167)	Concord
Schwarg, A.	(579-80)	Oakland
Scrogin, F. P.	(1335)	Whettier
Sherwin, Raymond J.	(617)	Vallejo
Simons, D.	(109)	Sherman Oaks
Smith, Ernestine I.	(1879)	Santa Rosa
Solberg, R. W.	(1172-74)	Walnut Creek
Sonnen, Michael B.	(1027-28)	"
Sorenson, James F.	(176-182)	California
Spangler, Steven	(132)	Los Angeles
Spinarski, Wallace G.	(2095)	Lancaster
Spotts, Richard A.	(91)	Montebello
Spotts, Richard A.	(759-60)	Montebello
Spriggs, Beth	(75)	Santa Paul
Stanbro, Philip	(1029-1030)	Oceanside
Stocking, Steve	(1267)	Stockton
Strantz, Maurice K.	(23-42)	Fresno
Strauss, George	(1567)	Berkeley
Stromsness, Chris	(1977)	Dunsmuir
Sumner, Richard	(104)	La Habra
Suttle, Gary D.	(864)	San Diego
Swenson, James E.	(1185)	Atherton
Taylor, Paul S.	(4025-26)	Berkeley
Thompson, John M.	(173)	Malibu
Thompson, Kirk	(2283)	Willows
Ulman, Tim	(379)	Esiondido
Ungerleider, Thomas J.	(2108)	Encino
VanKirk, Robert R.	(1540)	Arcata
Veirs, E.	(2799)	Placerville
Vincent, Dick & Audrey	(154)	Santa Paula
Wadsworth, Fred F.	(515)	Lakeside
Weissberg, Muriel	(208)	Redding

California

Westervelt, Ralph V.	(870-72)	Redlands
Whitney, Albion J.	(589-590)	Ukiah
Will, Robert P.	(5372-75)	San Fran.
Williams, Majorie C.	(439)	San Mateo
Wilson, John A.	(4800-4811)	Stockton
Witler, Jerry	(504)	Los Angeles
Whiteneck, Lawrence L.	(233-36)	San Pedro
Wood, James D.	(4061-68)	Chico

Colorado

Apter, Robert L.	(353-54)	Denver
Bailey, James A.	(2814)	Ft. Collins
Berger, Bruce N.	(70)	Aspen
Cade, Frank	(298)	Loveland
Carter, David A.	(3631)	Pueblo
Cooper, John W.	(5292)	Boulder
Engquist, Dale	(158-59)	Gunnison
Everitt, Benjamin L.	(1360-1)	Denver
Ferner, John W.	(1909)	Boulder
Goodman, Patsy D.	(1657)	Denver

Colorado

Gorsuch, Scott D.	(1096-1101)	Glenwd Spgs.
Hicks, Bernice E.	(1103)	Boulder
Hilgenberg, James F.	(1672-3)	Denver
Imfeld, Bruce W.	(1532)	Aurora
Jacobson, Eric	(201-2)	Denver
Johnson, Vikki	(163)	Elbert
Kelly, George & Sue	(136)	Cortez
Lahue, Miles D.	(2465)	Boulder
LaLena, Philip J.	(213)	Denver
Mitchell, Ned B.	(2893-94)	Ft. Collins
Molari, Sylvia & Russell	(3508-09)	Boulder
Morey, Edward	(501-2)	Denver
Mosman, Herbert	(1939)	Ft. Collins
Moyland, Thomas J.	(5464-68)	Littleton
Paulek, Victor A.	(1260-1)	Hesperus
Reed, Dale F.	(3994)	Wheat Ridge
Slade, David	(1771)	Boulder
Sorbie, John J.	(1974)	Ft. Collins

Colorado

Spangler, Peter	(956-8)	Pueblo
Thornton, Susan M.	(678)	Littleton
Tribble, Chuck & Letha	(1480)	Boulder
Trienens, John	(133)	Colo. Spgs.
Vogelaar, Dean	(815)	Glenwd Spgs.
Whitney, Gilbert & Margaret	(4623-24)	Lyons
Winston, Paul W.	(1987)	Boulder

Connecticut

Barlett, John H.	(1279)	Hartford
Berns, Joel M.	(191& 541)	Stamford
Crane, J. L.	(4211-12)	Woodbridge
Fairgrieve, Loudon	(1086)	Mystic
Girdler, Barbara K.	(1368)	Riverside
Girdler, Reynolds	(310)	"
Grem, Henry F.	(1521-24)	Terryville
Hart, Daniel	(3855)	New Milford

Connecticut

Jones, Frederick E.	(367)	Farmington
Knowlton, William R.	(3883-84)	Lakeville
Lidz, Charles W.	(487-8)	Stony Creek
Mantzaris, Adam	(743)	Wallingford
Morrill, M. Sue	(3956)	Salisburg
Olsen, Yrgue H.	(746-47)	New Canaan
Page, Linwood E.	(843)	Jewett City
Reid, Michael M.	(3267-69)	Sharon
Spurgen, Ely J.	(2783)	Lakeville
Spurgen, Tom H.	(2784)	"
Stempel, Josef F.	(1469)	Darien
Ullman, Betty	(3299)	Washington
Vincent, William S.	(1884)	Salisbury

Delaware

Miller, Robert K.	(3495-96)	Newark

Delaware

Myers, J. Sutton	(902-3)	Dover
Sporay, Robert J.	(1468)	Newark

District of Columbia

Bailey, Martin J.	(3328-9)	Washington
Boardman, Walter S.	(978)	Washington
Diener, William P.	(4987)	"
Cicchetti, Chas. J.	(DC II 95-108)	"
Fraser, George B.	(2841-42)	"
Holum, Kenneth	(SL 285-88) " 442-47)	"
Johnson, Albert R.	(894-98)	"
Moore, Alice E.	(3124-25)	"
Saltzman, Stephen G.	(177-183)	"
Smith, Anthony W.	(793-4)	"
Stockfisch, J. A.	(3586-9)	"
Strickland, Ronald G.	(287)	"
Tirana, T. W.	(188)	"
VanSickle, C. E.	(329-30)	"

District of Columbia

Vatz, Joan	(3598-3600)	Washington
Wilson, Evan M.	(533)	"

Florida

Allen, Rosamond	(686)	St. Pete.
Anderson, Jean M.	(1801)	St. Pete.
Arnoid, Steve	(517)	Clearwater
Barber, Marianne O.	(3530)	Sarasota
Barmettler, Donald J.	(248-49)	Ormd Bch.
Bottoms, P. W.	(2945)	Graceville
Bowman, Margaret C.	(3355)	Wabasso
Cossick, John P.	(1816)	Gainesville
Cox, Lamar F.	(774)	Tampa
Dunst, Elizabeth	(1085)	St. Pete.
Fleming, Bryan W.	(2696-97)	Homestead
Fussell, Michael	(301)	Tallahassee
Goodridge, Luelle	(1051)	St. Pete.
Greene, Mark S.	(333)	Coral Gables

Florida

Harrison, Eugene L.	(146-7)	Clearwater Beach
Jepsen, Laura	(2043)	Tallahassee
Jones, Marianna B.	(334)	W. Palm Bch
Klein, Eugene	(1007)	Tampa
Lamont, Gordon	(831)	Jupiter Isl.
Lewis, Weldon B.	(1213-15)	Ft. Pierce
Loehman, Edna	(4838-4927)	Gainesville
Loring, Gay	(2474-75)	Key West
March, James H.	(2064-65)	Sarasota
Major, Alford L.	(2889-90)	Dunnellon
McCullough, Bruce	(1139-41)	Tampa
Miller, E. M.	(576)	Coral Gables
Neptune, James D.	(700)	Clearwater
Paladino, Winfred K.	(220)	Clearwater
Paulk, James E.	(748)	Sarasota
Peterson, M. L.	(1863)	Temple Terr.
Pope-Moore, Toni	(4506-07)	Brooksville
Pope-Moore, Michael	(4506-07)	"
Powers, William F.	(614-15)	Riviera Bch.
Redstone, Henry A.	(1867)	Hallandale
Schreiber, Herman	(750)	Pensacola
Seward, Myra	(753)	Miami
Simmons, Lee	(477)	Hallandale

Florida

Smith, William A. Jr.	(859)	Clearwater
Swann, Tom B.	(1472-3)	Winter Haven
Wood, Sandra F.	(571)	Duneder

Georgia

Boone, Harry	(3354)	Atlanta
Crider, Claude	(78)	Norcross
Fishburne, C. M.	(4244-45)	Atlanta
Humphries, R. L.	(161-62)	Marietta
Jones, Laurie	(71)	Columbus
Jones, Wirt A.	(79)	Atlanta
Knight, Jane	(523-9)	Columbus
Roberson, Deloris B.	(4516-17)	Screven
Rudman, Richard	(5176-77)	Decatur
Sayer, Tony	(24-27)	Atlanta
Shaffer, Walter J.	(4532)	"
Smith, Furman Jr.	(82)	"
Snead, N. K.	(4018)	Smyrna
Ulrich, Richard W.	(588)	Columbus
Waters, D. F.	(4614-17)	Screven
Yarbrough, J. C.	(765)	Atlanta

Idaho

Baggley, George F.	(2917) (5510)	Boise
Bauer, James C.	(4644-45)	Pocatello
Bauman, Marilyn	(4164)	Caldwell
Blake, Ennis C.	(2206)	Idaho Falls
Bowler, Bruce	(4177-78)	Boise
Christensen, Fred A.	(2676)	Nampa
Davis, H. Tom	(4219-20)	Boise
Froehlich, Sandra M.	(425)	"
Froehlich, Ronald B.	(425)	"
Grout, Richard M.	(3766-67)	"
Horgon, Mike	(3870)	Mountain Horne
Knight, Ray	(3882)	New Plymouth
Langworth, E.	(2887)	Boise
McAlister, Ruby K.	(2888)	"
Magen, Russell	(574)	Pocatello
Maughan, Ralph	(3491-92)	"
Munson, A. H.	(3222-23)	Boise
O'Brien, John B.	(456-7)	Boise
Parkening, Duke K.	(908-46)	Kooskia
Parsons, Donna	(4783)	Caldwell
Peterson, Dennis J.	(3234)	Idaho Falls
Reed, Scott W.	(2539-53)	Coeur D' Alene
Rizarki, Gerald M.	(4524-25)	Boise
Runkle, John H.	(3275)	Nampa
Sharfman, William L.	(1460-1)	Pocatello
Siefken, Larry	(1876-7)	Idaho Falls
Smith, Eugene H.	(4536-37)	"
Thompson, D. L.	(3592-93)	Weiser
Tobias, Nelle	(4033)	McCall
Zuck, Don K.	(1195)	Twin Falls

Illinois

Abell, F. D.	(1800)	Charleston	Argosh, Mark	(3526)	Champaign
Aborjan, Edward W.	(3549)	Chicago	Aronson, Sam	(3932)	Chicago
Abram, Clarissa L.	(3938)	"	Aronson, Vivian M.	(3932)	"
Adams, Maureen	(3545)	Wilmette	Atkins, Ferrel	(9735)	Charleston
Adams, William	(3550)	Oak Lawn	Auld, Elaine	(3933)	Chicago
Agle, Michael	(3560)	Evanston	Aus, Richard R.	(3539)	Broadview
Ahlf, Robert E.	(4127-4129)	Homewood	Austin, K.	(3552)	Wilmette
Alexander, Paul L.	(3539)	New Lenox			
Allan, Sherle	(3940)	Hammond	Backys, M.	(3543)	Hoffman
Allbritten, Inez	(3535)	Chicago	Baily, John R.	(3540)	Chicago
Allen, Earl E.	(1274)	Palestine	Baldwin, F. L. Jr.	(3531)	Chicago
Allen, Kenneth S.	(3944)	Lake Zurich	Ballard, Mark	(3535)	Glenwood
Allen, Steven R.	(1889)	Charleston	Barazani, Gail C.	(3545)	
Allin, Ruth	(3937)	Elmhurst	Barejin, Morris	(3545)	
Almginst, Terrie	(3941)	Chicago	Barliant, S.	(3558)	Chicago
Alsobo, James	(3525)	Evanston	Barnet, Robert A.	(3944)	Wheaton
Alsobo, Marilyn	(3525)	"	Barnet, Robert	(3944)	Wheaton
Ames, Mel A.	(3944)	Chicago	Barnett, James	(3544)	Kankakee
Andens, Robert L.	(3553)	Chicago	Bart, Myrtle	(3552)	Bensenville
Anderson, Anne M.	(3524)	Park Ridge	Basler, E. J.	(3554)	Northbrook
Anderson, Everett L.	(3524)	Park Ridge	Batozech, Mary L.	(3543)	Joliet
Anderson, F. E.	(972)	Dolton	Bay, Dolores	(3554)	Chicago
Angell, Penny	(3943)	Chicago	Baynton, David	(3530)	Barrington
Answorth, Shirley S.	(3557)	Chicago	Beake, F.	(3558)	Chicago
Anthony, Michele	(3931)	"	Bean, C.	(3547)	Oak Park
Anzelmo, Elaine	(3933)	Mundelein	Beatty, John M.	(1348)	Villa Grove
			Beck, W. B.	(3940)	Carol Stream

Illinois

Becker, Minnie	(654)	Iuka	Bishop, Theresa	(3542)	Rolling Meadows
Bednarz, Liz	(3944)	Des Plaines	Bjork, H.	(3935)	Chicago
Beecher, W. J.	(421)	Chicago	Blair, Catharine	(1067)	Bensenville
Beier, Herman	(3541)	Ronkin	Blake, F.	(3531)	Chicago
Bell, Otho S.	(2346)	Chicago	Blake, K.	(3553)	Chicago
Beman, F. C.	(3556)	Harwood Hts.	Blanski, Paula	(3938)	"
Benkael, M.	(3550)	Chicago	Blegen, Ruth	(3531)	"
Bennett, Denise	(3538)	"	Bletther, A.	(3551)	Glen Ellyn
Bennett, Holly Reed	(1197)	"	Blonnolly, Kathleen	(3538)	Arl. Hgts.
Benson, George A.	(3933)	"	Bloom, M.	(3544)	Cherry
Benson, J. E.	(3933)	"	Blume, William J.	(3937)	Maywood
Benson, William B.	(3533)	Batarion	Board, Emma L.	(3530)	Chicago
Benzing, Charles	(3552)	Chicago	Boehringer, Chambers	(2816-17)	Tuscola
Beraca, T. S.	(3553)	"	Bolton, Joel M.	(3941)	Chicago
Berens, John	(3538)	Markham	Bond, Abe O.	(1490)	McLeansboro
Berkowitz, Steve	(3540)	Chicago	Bond, David C.	(4227)	West Chicago
Berman, D.	(3941)	Northbrook	Bond, Robert	(4227)	West Chicago
Betzer, C. E.	(3555)	Riverside	Borowick, Joan B.	(3935)	Chicago
Beyler, Robert A.	(3934)	Chicago	Boston, D.	(3531)	"
Biedran, Emil J.	(3934)	Palos Park	Botz, Rose	(3533)	"
Biedran, Gail	(3934)	Palos Park	Boylan, Patricia	(3532)	"
Bierman, Herbert	(3530)	Chicago	Boyser, Doris B.	(3538)	Homewood
Birkhaug, Fred	(3532)	La Grange	Bozarth, Chas M.	(1490)	McLeansboro
Birkhaug, Marilyn	(3532)	La Grange	Bozorsky, Louise	(3557)	CeCern
Birky, Howard	(3945)	Peoria	Bratschun, Neal	(3717-3720)	LaGrange
Bischoff, Robert	(3943)	Chicago	Bremma, Harry V.	(3526)	Berwyn

Illinois

Brevenik, John	(3555)	Niles
Breyler, Bernice	(3538)	Chicago
Brian, Diane	(3536)	W. Chicago
Bro, Kenneth M.	(771)	Winnetka
Brockman, William M.	(3543)	Ottawa
Brown, Margaret	(3933)	Wauconda
Brown, Richard	(1490)	McLeansboro
Brown, Richard H.	(3942)	Skokie
Browning, Chas H.	(1490)	McLeansboro
Buckham, Samuel	(3543)	Chicago
Buckler, John A.	(2211-12)	Tolono
Budreski, Diane G.	(3534)	W. Chicago
Buenta, Theodore D.	(3557)	Chicago
Burack, M.	(3943)	"
Burke, K.	(3544)	"
Burkett, Robert V. Sr.	(3932)	Winthrop Hbr
Byers, E.D. & Helen	(3624)	Tuscale
Cadwell, Floyd	(3544)	Lansing
Cajil, Alice	(3940)	Chicago
Camden, Hazel	(3534)	Elmhurst
Campbell, Jill	(3541)	Cary
Campbell, Winnifred R.	(4227)	Lisle
Cantol, Ralph C.	(3528)	Chicago
Cantwell, Mary A.	(3528)	Worth
Cardona, Richard	(3944)	Franklin Pk.
Carlson, Ralph	(3554)	Lombard
Carlson, Robert	(2952)	Oaklawn

Carr, Linda	(4184-5)	Oakland
Carter, Thomas	(3543)	Villa Park
Caso, Arthur L.	(2358)	Elmhurst
Castleton, Paula S.	(3942)	Highland Pk.
Ceber, B. J.	(3540)	Chicago
Cekal, J.	(3935)	"
Cerrer, W.	(3535)	Bartlett
Ceyendre, Roy W.	(3551)	Chicago
Chamberlin, W. C.	(3555)	Bloomington
Chapman, Earl	(2674-5)	Tuscola
Charbot, Chris	(3559)	Chicago
Chase, Dave	(3935)	Highland Pk.
Chia, Fruma	(3554)	Chicago
Chrisffersen, K.	(3551)	Skokie
Christnan, Charlotte	(3541)	Hinsdale
Christnan, Lyn	(3541)	"
Chrusciel, Raymond A.	(3537)	Chicago
Clark, John S.	(307)	Freeport
Clouch, D.	(3546)	Chicago
Cohen, Ellen J.	(3560)	"
Cohen, Harry	(3560)	"
Cohen, S.	(3559)	"
Coleman, M.	(3546)	"
Collier, Malcolm	(3525)	"
Collins, Lorraine A.	(3537)	Des Plaines
Collins, Tina	(3560)	Chicago
Concannon, Shawn	(218-9)	"
Condon, James E.	(3941)	"
Cone, Blanche	(3557)	Willow Spgs.

Illinois

Conkey, Phyllis M.	(3531)	Chicago
Conlin, Mike	(544-5)	Bushnell
Connely, John	(3542)	Arl. Hts.
Connor, J. O.	(3557)	Park Forest
Connor, Joseph	(3548)	Niles
Connor, Lorraine	(3547)	"
Connor, Ray	(3539)	Park Ridge
Connor, Eileen	(3539)	"
Conte, Philip M.	(3945)	Schaumburg
Conway, David O.	(3932)	Orland Pk.
Cook, Nancy W.	(2361)	Highland Pk.
Cookman, Elizabeth M.	(3533)	Park Ridge
Corsetti, L.	(3546)	Chicago
Cortin, Ruth	(3933)	Highland Pk.
Cotterell, Fred	(3554)	Buffalo Grove
Cotterell, Mildred	(3554)	"
Covington, George M.	(3650-51)	Chicago
Craft, W.C.	(3528)	Wilmette
Craig, Alice H.	(4227)	Wheaton
Craig, George S.	(4227)	"
Craignilo, Chas.	(3541)	Mokena
Crampi, L.	(3545)	Illinois
Crandall, Roma	(3936)	Chicago
Credon, L.D.	(3550)	Riverside
Crippen, S. S. Jr.	(3943)	Norwood Pk.
Cromark, Evelyn T.	(3933)	Chicago
Crowley, Francis E.	(3545)	"
Crowley, Rosemary	(3545)	"

Dague, Keith	(2971)	Tuscola
Dals, Sally	(3931)	Illinois
Dannberg, Judith L.	(3552)	Lk. Forest
Darby, Edgar H.	(3939)	Chicago
Daronia, Brian	(3553)	"
Das, R.	(3546)	Northfield
Davies, M.	(3526)	Chicago
Davis, Michael	(3530)	"
Davis, Nancy L.	(3542)	"
Dawson, Sherry A.	(3538)	"
Dchulge, Bernadette D.	(3529)	Wheaton
DeCamp, Jerry	(2378-82)	Pk. Forest
DeFelice, Vickey	(3528)	Norridge
Degler, Mike	(1500-2)	Mattoon
Deig, G.	(3529)	Cowners
Delattre, Sheila	(3942)	Illinois
Delle, Keith	(3549)	Evergreen Pk.
Derbak, Paula	(1902-5)	Chicago
Deslandes, Jackie	(3939)	Homewood
Deslandes, JoAnn	(3939)	"
Detamble, William	(3944)	Chicago
DeVries, Rachel	(3527)	Downers
Dickerson, Ray C.	(5404-5)	Springfield
Dierks, Geraldine D.	(3550)	Des Plaines
Dierks, Robert P.	(3550)	"
Dinell, W.	(3554)	Morton
Ditabhur, Doris M.	(3557)	Northlake
Doan, Paul	(3532)	Wilmette
Dobrowolski, John	(3937)	Illinois

Illinois

Dobson, Ted	(3542)	Park Ridge
Dodge, Fred W.	(3530)	Arl. Hgts.
Dodge, Ruth E.	(3530)	"
Dolene, Martin	(3939)	Chicago
Dols, John M.	(3550)	Rolling Meadows
Dols, Terri M.	(3550)	"
Domina, Michael & Meryl	(1357)	Chicago
Donahue, Kathleen A.	(3345)	Illinois
Donahue, Thomas K	(3545)	"
Doss, Jim	(3525)	Belvwood
Doster, R. A.	(3533)	Evanstonil
Douglass, Adele S.	(2691)	Champaign
Down, Joyce	(3943)	Kankakee
Drahnak, J.	(3930)	Chicago
Dressen, Margaret	(3548)	"
Duckworth, Ruth	(1084)	"
Duelzinski, Davis S.	(3530)	"
Duffin, Russell	(2230-1)	Danville
Dung, Vangie	(3535)	Pk. Forest
Dunlap, Carol L.	(3527)	Bolingbrook
Dunlap, Myrtle N.	(3548)	Pk. Forest
Dunn, James	(3941)	Calumet City
Dunn, John E.	(3932)	Oak Park
Dunworth, R.	(3533)	Chicago
Duola, Cathy	(3526)	Elk Grove
Durr, Teresa	(3538)	Chicago
Dye, Leighton	(3944)	Bloomingdale
Dye, Moniha	(3944)	Bloomingdale
Dyer, John	(3540)	Chicago
Dyson, John D.	(3675)	Champaign
Dyson, Margaret E.	(3676)	"
Earley, Judy U.	(3558)	Chicago
Easton, Marjorie	(3550)	Highland Pk.
Ebert, L.G.	(2838)	Vandalia
Eddings, Jess M III	(1644-6)	Ivka
Edmur, Edward M.	(3532)	Chicago
Edstrand, Matthew	(3540)	"
Edwards, Patt	(3558)	"
Egbert, Judith	(3930)	Palos Park
Egbert, Mark A.	(3930)	"
Ehrlich, Anne A.	(4233)	Champaign
Eichalaedt, J.	(3537)	Park Ridge
Elliott, Thomas D.	(3524)	"
Elliston, Walter	(1490)	McLeansboro
Elmer, Carl W.	(4227)	Downers Gr.
Enerud, A.	(3936)	Oak Park
Engel, Bob	(3932)	Illinois
English, Tom	(1490)	McLeansboro
Ensminger, Wanda A.	(3524)	Lombard
Enzenbacher, M.	(3557)	Bartlett
Estes, K.	(3543)	Downers Gr.
Estes, R. Ray	(3543)	"

Illinois

Eutinger, R. L.	(887)	Highland Pk.
Evans, Lucy	(2692-93)	Markham
Faoio, Frieno	(3559)	Dalton
Farshtich, Elenor	(3554)	Joliet
Fautsch, H.	(3548)	Libertyville
Feakins, Tillie	(3556)	Peorio
Ferguson, James P.	(3945)	Chicago
Ferguson, Nancy	(3945)	"
Filipowski, Kirk	(3537)	Skokie
Findley, Roger W.	(1654)	Champaign
Fisher, Ricky	(991)	Illinois
Fiske, Darlene	(3534)	Woodstock
Fitch, R. R.	(3531)	Geneva
Fitz, Marjie	(3556)	River Forest
Flinkow, Raymond	(3550)	Chicago
Flint, F. E.	(3539)	"
Fojtik, Kim	(3554)	Hoffman Est.
Folte, Rodger N.	(3528)	DeKalb
Forrer, M. Mae	(3748)	Champaign
Frank, Marjorie	(3534)	Lk. Zurich
Frederick, Shirley	(3553)	Homewood
French, Fredrica S.	(3524)	Long Grove
Frihart, Charles R.	(2978-79)	Urbana
Froeliel, David L.	(3545)	Illinois
Frost, Gary	(3550)	Chicago
Gaber, Mike	(3537)	"

Gabriel, LaVerne	(3532)	Pk. Ridge
Gahne, Leonard	(3538)	Chicago
Gaiapolo, Louis J.	(3526)	Oak Park
Gaigalas, Ivan H.	(3939)	Chicago
Gallreath, Beth H.	(2307)	Chicago
Galssman, Eileen	(3540)	"
Gardner, Marjorie	(3548)	Pk. Ridge
Garrison, Savoy	(3538)	Chicago
Garrity, Kathy	(3558)	"
Gasparich, M.J.	(3942)	Belleville
Gattolin, Pauline	(3548)	Waukegan
Gerber, Marvin	(3551)	Chicago
Gerber, Rosslyn	(3551)	"
Giast, Jean M.	(3532)	Lk. Bluff
Gibson, Marie B.	(3935)	Oak Park
Gibson, Patricia	(3935)	"
Gihlow, Allen	(3939)	Chicago
Gilbernllay, Lynn	(3939)	Glen Ellyn
Gilbert, Bruce T.	(3527)	Chicago
Gilhardt, Thomas E.	(3560)	Palatine
Gillespie, James	(28-30)	Mt. Carmon
Gladney, Frank Y.	(2430-1)	Urbana
Gladstone, Gertrude	(3552)	Chicago
Glawe, Mildred	(3945)	Blue Island
Glenn, Edmond	(3551)	Brookfield
Globe, Lawrence	(3939)	Joliet
Glueck, Elmer F.	(519)	Chicago
Goassins, Elizabeth	(3560)	"

Illinois

Goldstein, Lee	(3935)	Palatine
Goldys, Eleanor	(3537)	Calumet City
Goodman, Gary	(3551)	Chicago
Goodman, Robert	(3544)	Round Lake
Gnardell, M.	(3559)	Illinois
Gonao, Dolores	(3535)	Downers Gr.
Graf, Kim	(3554)	Hoffman Est.
Graffis, Marie K.	(3544)	Northfield
Gragert, Tillie	(2433-35)	Iuka
Graham, Catholine M.	(3932)	Dolton
Graham, Helen B.	(3937)	Evanston
Graham, Ledee A.	(3937)	"
Graham, Carl	(3547)	Brookfield
Granahan, Phyllis	(3938)	Northbrook
Granau, C. F.	(3557)	Chicago
Graves, Gordon	(2704-05)	Kankakee
Gray, Eugene	(3532)	Chicago
Grechen, Rudolph	(3558)	"
Green, Jacquaiine	(3542)	"
Greenbaum, Michael S.	(3547)	Evanston
Gregory, William	(3529)	Chicago
Grichnik, J. A.	(1658)	Park Ridge
Griffin, James D.	(1490)	McLeansboro
Grining, Connie	(3942)	Chicago
Grojin, Richard	(3542)	"
Gruca, Rita	(3545)	"
Gruebnau, Betty	(3534)	Lk. Zurich
Grummett, Edith	(2436)	Arcola
Grutzrus, E. K.	(3534)	Glenview
Guceir, Anthony	(3529)	Zion
Guceir, Louise	(3529)	Nemidye
Gumer, J.	(3941)	Chicago
Guthrie, C.	(3553)	Wadsworth
Guzowski, P.	(3555)	Chicago
Haas, Jeff	(3556)	Mokena
Haas, Jill	(3556)	"
Haas, W. J.	(3548)	Wheaton
Haas, William	(3556)	Mokena
Hafner, Gertrude	(3941)	Chicago
Hagan, Shari	(3531)	"
Hain, Herbert	(3938)	Norris
Hale, Walter H.	(1490)	McLeansboro
Hall, Iris	(3942)	Cambridge
Hallivan, T. J.	(3543)	Blue Island
Hamill, Corwith	(602)	Chicago
Hamilton, Reed	(426)	Monee
Hansen, Donald F.	(3773-4)	Urbana
Hansen, Myrtle	(3536)	Lisle
Harberger, Arnold C.	(3779-3845)	Chicago
Harriett, Alice	(3938)	Elk Grove
Harriett, Clyde	(3938)	"
Harris, Barb	(3535)	W. Chicago
Hart, Dorothy	(1663)	Charleston

Illinois

Harvey, Edwin	(3005)	Bridgeview
Hawkins, Lorraine D.	(3551)	Chicago
Healey, Ed.	(3544)	Granville
Heeter, Constance	(3944)	Des Plaines
Hehir, P.	(3546)	Chicago
Hehnick, Arthur	(3552)	"
Heinrich, E. M.	(3938)	"
Heinrich, Gilbert J.	(3938)	"
Helms, Ted	(3868)	Urbana
Hendabl, William D.	(1490)	McLeansboro
Hendricks, Ellen L.	(3560)	Chicago
Hendricks, Karen	(3559)	"
Hendry, Margarita	(3941)	Joliet
Henghill, Ronda M.	(3555)	Jacksonville
Herlihy, Betty	(3555)	Chicago
Hermann, Lydia	(3944)	"
Herwg, Elaine	(3550)	"
Hesler, Kenneth K.	(1381-2)	Lombard
Heyman, Judy	(3527)	Highland Pk.
High, J.	(3541)	Palatine
Hinford, Yvonne	(3937)	Chicago
Hodges, D.	(3555)	"
Hoel, Robert D.	(3546)	"
Hoffwell, Kenneth	(3545)	Lombard
Hoffwell, Rose A.	(3545)	"
Holden, Patricia	(3525)	Oak Park
Holly, Eileen	(3934)	Willow Spgs.
Holly, Marie	(3934)	"
Holtara, B.	(3547)	Berwyn
Hommedien, Howard H.	(1109-1117)	Arl. Hgts.
Honald, H.	(3546)	Des Plaines
Honald, O. J.	(3546)	"
Hoogstra, A.	(3555)	Mokena
Hoover, Dave	(3025-3037)	Taylorville
Hoppe, Nina I.	(3536)	Lisle
Hornblower, Huron M.	(3550)	Des Plaines
Horne, Frances T.	(3933)	Barrington
Horowitz, JoAnn	(3527)	Chicago
Horvath, Florence	(3544)	Lansing
Howbert, Diana M.	(3542)	Pk. Forest
Howbert, James B.	(3542)	"
Huber, Paul	(3935)	Joliet
Huenfeld, Molly E.	(3526)	Banington
Hughes, Kay	(3542)	Palatine
Hughes, Mary L.	(3545)	Elmhurst
Hulen, Gordon J.	(3940)	Joliet
Hunter, Marie	(3945)	Northbrook
Hunter, Robert	(3945)	"
Hurd, L.	(3555)	Mokena
Hutshman, J. Jr.	(3533)	Northfield
Hyman, E.	(3539)	Chicago
Ialezzra, Lorraine	(3548)	Portage
Ibis, Dale	(3930)	Chicago
Ibis, Ruth	(3930)	"
Ignelzi, Kathleen M.	(3532)	Des Plaines

Illinois

Imber, Geraldine	(3553)	Homewood
Ingham, John M.	(99)	Chicago
Ingram, Karen	(3930)	Evanston
Izard, M.	(3537)	Wilmette
Jackson, Debra	(3538)	Chicago
Jackson, G.H.R.	(3533)	Glenese
Jacobs, Annette	(3931)	Chicago
Jandyk, Arline	(3560)	"
Janecki, Billie	(3529)	"
Janecki, Richard A.	(3529)	"
Janicek, Edith M.	(4227)	Westmont
Jared, Grace E.	(4302-5)	Olney
Jares, Anita	(3557)	Berwyn
Jares, Jerry	(3556)	"
Jarosh, Charles	(3556)	Park Ridge
Jaruowski, Stephen D.	(3549)	Chicago
Jasin, Richard P.	(3544)	"
Jederici, Michael G.	(3941)	"
Jehones, Ann	(3945)	"
Jenkins, Collen & Truman	(1385)	Iuka
Jerke, Dorothy	(3549)	Hanover Pk.
Johnson, J.	(3531)	Riverside
Johnson, Patricia	(3935)	Chicago
Johnson, Don	(3547)	Joliet
Johnson, Paula	(3547)	"
Johnston, Eileen L.	(3873-4)	Wilmette
Jones, Barb	(3933)	Evergreen Park
Jones, Bart	(3944)	Chicago
Jones, Gladys M.	(3936)	"
Jones, James R.	(3544)	"
Jones, N.	(3550)	"
Joseph, Faye	(3939)	"
Jourgen, Murray V.	(3547)	Evanston
Joy, Judith	(SL 464-6)	Centralia
Juradea, Nettie S.	(3528)	Chicago
Justen, Peter	(3536)	Woodstock
Justzi, Louis	(3554)	Palos Par
Kabash, William	(3559)	Blue Islan
Kajks, Elmer A.	(3537)	Glenview
Kalehbremni, John A.	(3555)	Palos Hill
Kaminski, Geraldine	(3540)	Morton Gr
Kamm, Ina	(3558)	Chicago
Karlek, Josephine	(3945)	"
Kavanagh, Larry	(3934)	Wayne
Kavanagh, Judy	(3932)	"
Kazial, Florence	(3543)	Chicago
Kearns, Lyn	(3942)	"
Keil, Barbara S.	(3945)	"
Kekatos, Anne	(3934)	"
Kelly, E.	(3935)	"
Kenaga, George	(2726-7)	Skokie
Kenny, John P. Jr.	(3940)	Berwyn
Kerchenberg, Don	(3526)	Chicago
Kerr, M. C.	(3546)	"

Illinois

Kerr, Mary S.	(3546)	Chicago
Kessler, Diane	(3558)	"
Kessler, Sol	(3558)	"
Kiamer, John	(3525)	Northbrook
Kiamer, Judy	(3525)	"
Kibbey, David	(3451-2)	Urbana
Kich, S.	(3555)	Chicago
Kiefer, Lynn	(3549)	Bensenville
Kielin, Edward J.	(3554)	Illinois
Kilby, James J.	(3932)	Homewood
Killian, Catherine L.	(3932)	Chicago
Killian, Jeanne	(3558)	Des Plaines
Kindt, Shirley	(3556)	Chicago
King, George F.	(1686-7)	Mattoon
Kirkconnell, R.	(1127-8)	Homewood
Klahm, Bell	(3543)	Merrillville
Klein, Edward J.	(3934)	Elmhurst
Kling, Stephen J.	(4227)	Warrenville
Klug, Alice	(3942)	Chicago
Klug, Charlotte	(3942)	"
Klups, Bernice	(3941)	"
Knoga, Rita	(3941)	"
Knowles, J.	(3530)	"
Kobos, Joseph J.	(3525)	"
Kobos, Joy	(3525)	"
Koch, William F.	(3549)	"
Koehuke, John	(3453)	Iuka
Koehuke, Raymond	(508)	"
Koehuke, Raymond	(1927)	Iuka
Koerner, L.	(3555)	New Lenox
Kolber, G.	(3932)	Chicago
Kosmieja, Bill	(3540)	"
Kosmieja, Walter F.	(3540)	"
Kostlevy, Lillian	(3547)	Berwyn
Kott, Terry A.	(3540)	Chicago
Kotula, Diane	(3942)	"
Kowal, L.	(3932)	"
Kozdnas, Jackie	(3942)	Calumet
Kozora, Donald	(3532)	Chicago
Krajewski, Thaddeus J.	(3541)	"
Kralih, Judith	(3552)	Bollingbrook
Kramer, Freida	(3931)	Chicago
Kramer, Lawrence B.	(3528)	"
Krett, Gale S.	(3559)	Prospect Hgts.
Krett, S. E.	(3559)	"
Kreuvoy, Laura	(3525)	Chicago
Krier, Patt	(3558)	"
Krieter, Ellie	(3559)	"
Kriho, Ralph J.	(3534)	"
Krueger, Ken	(3537)	Norridge
Krupenshr, Anna	(3552)	Illinois
Kruse, Gail M.	(3548)	Des Plaines
Kucera, Helen	(3529)	Northfield
Kucera, Kenneth A.	(3529)	Ciceroil
Kuegemann, B.	(3541)	Elmhurst
Kueger, Geo. A.	(3531)	Harvy

Illinois

Kulka, Mary J.	(3533)	Chicago
Kumega, Betty	(3560)	"
Kurbon, Donal	(3944)	"
Kurl, Gordon P. Jr.	(3944)	"
Kurtz, Arnieta	(4227)	Sowners Gr.
Kurtz, George L.	(4227)	"
Kurz, Robert J.	(3560)	Chicago
Kuttinger, Francis W.	(1490)	McLeansboro
Lackowski, Emilie	(3532)	Chicago
Lagelin, L. N.	(3939)	Homewood
Lamps, Julie	(3541)	Evanston
Lamps, Nancy H.	(3541)	Rockford
Landgrof, Abby	(3539)	Wheaton
Landgrof, William	(3539)	"
Larson, Lois A.	(4227)	Elmhurst
Lauren, Bruce	(3932)	Melrose Pk.
Lauren, Kathy	(3537)	Skokie
Lasch, Lillian	(3552)	Martin Gr.
Lastosjek, Ed.	(3942)	Illinois
Lee, Kyu Y.	(1136)	N. Aurora
Leir, B. Fred	(3532)	Chicago
Lelugus, Kenneth C.	(3544)	Hickory Hills
Lelugus, Susan	(3544)	"
Lemmler, Freda	(3543)	Chicago
Lence, Dan	(3557)	Glen Ellyn
Lence, Jane	(3557)	"
Lence, Ruby	(3557)	"
Lenhszus, Anne	(3535)	S. Holland
Lenzi, Ray	(3025-3037)	Carbondale
Lerbogus, Barbara	(3535)	S. Holland
Lessner, Gloria	(3941)	Chicago
Levee, Dorothy	(3554)	"
Ley, Charles H.	(3554)	"
Lindsey, Ann	(3536)	"
Lindquist, Jerry	(3547)	"
Lisar, O.	(3530)	Calumet City
Liskowski, Ray	(3941)	Chicago
Lissak, Rosanna	(3934)	Oaklawn
Litos, Mildred	(3525)	Berwyn
Lobik, P.	(3939)	Glen Ellyn
Loboy, Vivian	(3540)	Park Ridge
Logsdon, P. Alan	(3940)	Frankfort
Logsdon, Linda	(3940)	"
Loher, Anne M.	(3540)	Chicago
Long, Joan	(3552)	LaGrange
Loreen, Edward R.	(3540)	"
Lorenc, Rita	(3520)	S. Holland
Lorz, Mike	(3944)	Des Plaines
Losh, B. J.	(3937)	Illinois
Louis, Charlotte	(3933)	Chicago
Love, James E.	(3932)	Western Spgs.
Lukes, Hilda	(3939)	Chicago
Lundberg, Lloyd H.	(3556)	Elmhurst
Lunde, E. H.	(2743)	Chicago
Lungwitz, Arthur J.	(3937)	Chicago

Illinois

Lynch, Jean	(3944)	Glenview	Martinez, Ed	(3542)	Plano
Lynn, Mike	(3940)	Elmhurst	Marzuki, James	(3526)	Park Forest
Lyreh, Anthony C.	(3549)	Chicago	Masnick, M.	(3535)	Calumet City
			Mathes, Betty	(1415-6)	Tuscola
Macafee, Elinor C.	(3943)	Wheaton	Matheson, Mary A.	(3553)	Chicago Hgts.
Maccey, Mary W.	(3526)	Berrington Hills	Maturzak, Mildred	(3552)	Chicago
			Matza, Chas.	(3945)	"
McDonald, Georgine B.	(2745)	Hindsboro	Matza, Joyce	(3945)	"
McDonald, J.	(3528)	Dundee	Maurer, Karen	(3526)	Homewood
Mack, M.	(3552)	Chicago	Mayne, Winifred P.	(4227)	Naperville
Mact, Evelyn J.	(3549)	Evergreen	McCallister, James	(3939)	Chicago
Mae, N.	(3541)	Palatine	McCarthy, T. J.	(3531)	Pacos Pk.
Maine, Rosanne	(3543)	Winnetka	McCartney, Phyllis	(3547)	Palos Hgts.
Majerus, Maureen	(3945)	Skokie	McClure, Michael	(3943)	Chicago
Majerus, Richard	(3945)	"	McColl, Frances W.	(4349-50)	Charleston
Malin, G. L.	(3529)	Chicago	McCord, Sherman	(2060)	Carthage
Maloney, Evelyn	(3931)	Palos Hills	McCray, S. A.	(3537)	Rochelle
Maloney, Thomas A.	(3931)	"	McGaun, Frances C.	(4227)	W. Chicago
Mansfield, Maurie	(3931)	Chicago	McGlin, Bruce	(3529)	Chicago
Manuell, Richard E.	(1412)	Ridgefarm			
Manuell, Susan J	(1413)	"	McGrath, Edward J.	(3931)	"
March, Hope C.	(3528)	Glen Ellyn	McGrath, Kathleen	(3931)	"
Marie, Sr. Pierre	(3544)	Chicago	McLeomuh, Albert J.	(1010)	Iuka
Maroczkauski, Nancy	(3553)	"	McMackin, Jean T.	(840)	Salem
Martin, Bruce	(3533)	"	McVeigh, Carol	(3543)	Wheaton
Martin, Laura L.	(3528)	Lombard	Meca, Blanche	(3536)	Lombard
Martin, Margaret E.	(3528)	"	Mechling, F. A.	(1704-6)	Joliet
Martin, W.	(3533)	Chicago	Mehaach	(3934)	Elmhurst

Illinois

Meier, Helen	(338 ,1255 ,3525)	S. Holland
Mera, O. A.	(3552)	Rockford
Mercure, Corinne	(3544)	Hillside
Messmer, Elsie	(3537)	Chicago
Mesic, Helen	(3525)	Berwyn
Metheany, Jefri	(3936)	Hilo
Meyer, Emmett R.	(3533)	Oak Lawn
Meyer, J. H.	(3546)	Chicago
Meyer, Walter	(410)	Keyesport
Meyer, Wayne N.	(3116-7)	Tuscola
Meyers, Edward	(3939)	Bellwood
Meyers, Marjorie	(3939)	"
Michalovic, Elsie	(3549)	Chicago
Mier, L. M.	(3544)	Itasca
Migarz, R.	(3529)	Highland Pk.
Mikrewicz, M. J.	(3541)	Chicago
Mildred, Sister	(3544)	"
Miller, Dwight	(1490)	McLeansboro
Miller, Ivan R.	(1719-22)	Robinson
Miller, K. R.	(3549)	Hazel Crest
Miller, Patricia A.	(3549)	Bensenville
Miller, Roberta	(3525)	Chicago
Miller, Roger H.	(1147)	Winnetka
Milliser, Russell	(901)	Villa Park
Minegue, J.	(3553)	Chicago
Miner, William D.	(4722)	Charleston
Mistretta, Chester	(3545)	Illinois
Mistretta, F.	(3545)	"
Mitchell, K. T.	(1490)	McLeansboro
Mitz, M.	(3553)	Chicago
Miuhlhausen, B.	(3543)	Elgin
Mohrer, Darlene	(3547)	Glenview
Moll, Edward O.	(5952-4)	Charleston
Monek, L.	(3534)	Berwyn
Mongello, Audrey	(3930)	Cicero
Monson, Milton	(3542)	Wilmington
Montgomery, Beulah	(1431)	Oakland
Montgomery, Gary	(3560)	Woodridge
Mooring, Jean C.	(3528)	Glen Ellyn
Mopley, Thomas	(3543)	Chicago
Moretta, J. N.	(2505-6)	Wilmette
Morris, Earl	(3941)	N. Chicago
Morrison, Barbara J.	(3942)	Spring Gr.
Morrison, V. W.	(3942)	"
Mostek, Raymond	(3527)	Lombard
Mowen, Fern R.	(3528)	Broadview
Moyde, Walter	(3539)	Chicago
Mudloff, Carol	(3940)	"
Mudloff, Thomas	(3940)	"
Mudy, Patricia	(3531)	"
Mueller, Sandra	(3945)	Blue Island
Muench, A. Jr.	(3944)	Des Plaines
Murphy, Jackie	(3935)	Evanston
Murphy, W. K.	(791)	Schaumburg
Mursherheim, Carl H.	(3544)	Evanston
Myers, James M.	(3553)	Downers Gr.

Illinois

Naftzger, Kim	(3936)	Elmhurst
Naftzger, Mary A.	(3936)	"
Nagai, Betsy	(3939)	Lk. Bluff
Nardiello, Helen	(3557)	Northlake
Nathan, Dian	(3527)	Highland Pk.
Nawrocki, A. David	(3960-1)	Champaign
Naylor, Donna	(3556)	Bloomington
Necoletti, Nancy	(3935)	Chicago
Nelson, Albert	(3538)	"
Nelson, Judith E.	(3527)	"
Nelson, Roberta	(4227)	Lombard
Nelson, W. Sue	(3527)	Elgin
Newren, Marilyn M.	(3937)	Oak Park
Nicholny, Helen	(3530)	LaGrange
Nofginger, Art	(3541)	Danvers
Nolan, E.	(3560)	Hillside
Norean, Marcia	(3526)	Elk Grove
Norris, Woodrow	(3536)	Oakland
Novak, Rita	(3941)	Chicago
Noye, William F.	(3556)	Melrose Pk.
O'Brien, Caroline L.	(3527)	Hinsdale
O'Brien, M.	(3552)	Naperville
O'Dell, Dolly	(3941)	Chicago
Olenh, Joseph	(3549)	"
Olson, Edward C.	(239)	Urbana
O'Neil, T. Patrick	(3942)	Chicago
Orlinsky, Nancy	(3534)	"
Orom, Barbara	(3535)	Downers Gr.
Orr, James T.	(3532)	Wood Dale
Ortermann, Joe	(3937)	Chicago
O'Shoney, T. M.	(3558)	"
Osmondson, Carol	(3935)	"
Ostermann, Diane	(3937)	"
Osuch, Ted	(3941)	"
Overby, Margaret B.	(3526)	"
Owens, Catherine	(3939)	Pk. Forest
Pacay, John	(3559)	Mundelein
Pacay, Jolinda	(3559)	"
Page, Larry M.	(1860)	Urbana
Pagoria, Frank G.	(3536)	Crete
Palamo, Rita	(3937)	Chicago
Palmer, Curtis R.	(3534)	Northbrook
Palonman, R. M.	(3531)	Chicago
Pancez, Rosanne	(3941)	"
Pangercie, Elaine	(3545)	Lyons
Paranello, Albert J.	(3548)	Chicago
Parker, Brenda	(3538)	"
Paschal, Bill	(3941)	Chicago
Pasjuesi, Nancy	(3933)	Highland Pk.
Passuello, J. A.	(3534)	Chicago
Pater, Anna	(3540)	"
Paulsen, R. C.	(3942)	"
Pearson, Ella M.	(3527)	Elmhurst

Illinois

Pearson, Nancy M.	(3527)	Harvey
Peasek, Adeline I.	(3532)	Worth
Peers, Mildred	(4489)	Highland
Pekoz, Mr. & Mrs.	(3931)	Lansing
Pendell, George M.	(5693)	Mattoon
Penillo, Elaine	(3529)	Elgin
Perek, Patti J.	(3532)	Worth
Perez, G.	(3558)	Chicago
Pestone, Martha C.	(3545)	"
Peterson, A. L.	(3535)	"
Peterson, David	(1737-8)	Riverdale
Peterson, Diane	(3551)	Skokie
Peterson, Ronald Q.	(2269)	Dolton
Petrie, Anne B.	(3530)	Wilmette
Pezny, Joe & Rose	(3942)	Belleville
Phillips, Albert Jr.	(3936)	Plano
Pinter, Floyd	(3237)	Malden
Pitem, G.A.	(3525)	Homewood
Pitrus, Sally	(3560)	Park Ridge
Pitz, Dorothy	(3526)	Forest Pk.
Planutis, Cathy	(3547)	Illinois
Planutis, Christine	(3547)	"
Platt, Rutherford H.	(3539)	Chicago
Playle, J. A.	(3943)	"
Pobdon, LaVerne	(3531)	Wonder Lk.
Polzin, Alfred	(3544)	Oak Lawn
Ports, Carol	(3945)	Darien
Ports, Steve M.	(3945)	"
Ports, Stephen	(3945)	Darien
Power, Edward N.	(3540)	Lombard
Prattaroli, E. John	(1438)	Chicago
Prendler, Kathryn	(3534)	Darien
Profrowski, P.	(3552)	Cicero
Protas, Eleanor	(3936)	Chicago
Protrowski, Mike	(3539)	Northbrook
Pullen, Ray	(3542)	"
Pupp, O.	(3542)	Bellwood
Pztlewier, Theresia	(3937)	Chicago
Proksa, Irwin J.	(3546)	Hinsdale
Quandt, Ervin	(2447)	Iuka
Quandt, Gary	(2448-50)	"
Quandt, Irvin	(2534)	"
Quandt, Laverine	(2451-53)	"
Quandt, Vernon L.	(2454)	"
Quick, J.	(3534)	Rosemont
Quincy, Stephen F.	(3556)	Homewood
Quinn, W. J.	(3560)	Elmhurst
Rabahuk, M.	(3931)	River Grove
Radnos, Anita	(3534)	Chicago
Rahn, Floyd	(1553)	Morton
Randolf, D.	(3930)	Homewood
Rapp, H.	(3543)	Chicago
Rase, James W. Jr.	(2535-36)	Charleston
Rash, Clyde C.	(3943)	La Grange
Ratkovich, John M.	(5346)	Evanston

Illinois

Rau, Curran A.	(3938)	Des Plaines
Rau, Mary C.	(3938)	"
Rauth, Peter	(3942)	Elmhurst
Reczek, John	(3540)	Niles
Redemshe, S.	(3546)	Chicago
Reeck, D.	(3546	"
Reed, Barbara	(4227)	W. Chicago
Reed, John F.	(3551)	Chicago
Reese, Eileen B.	(3539)	"
Reich, D.	(3553)	"
Reichel, A. S.	(3551)	Glen Ellyn
Reichel, Robert C.	(3551 ,4227)	"
Reisig, Gregory S.	(4512-3)	Crete
Relyea, M.	(3541)	Berwyn
Rera, J. J.	(3940)	Evanston
Rera, Krans M.	(3940)	"
Retherford, Mary K.	(1163-5)	Jerseyville
Reynolds, Nancy	(414)	Chicago
Rich, Lloyd	(3530)	"
Rinker, Sue B.	(3933)	Downers Gr.
Rissman, J.	(3527)	Highland Pk.
Rivera, Paul D.	(3934)	Bellwood
Robert, R. Sue	(3944)	Evanston
Roberts, Hazel	(3533)	Oak Park
Roberts, Mary I.	(3931)	Crete
Robinson, Hazel E.	(3542)	Melrose Pk.
Robinson, Jimmie	(3943)	Chicago
Rocica, Joan	(3546)	"

Rockes, Larry	(3933)	Evergreen Pk
Rogers, Michael W.	(3939)	Hazelcrest
Rogers, Sharon L.	(3940)	"
Rollins, William S.	(103)	Wilmette
Roman, Arthur	(3935)	Tinley Pk.
Rose, Jeanette	(3537)	Fenton
Rostron, Betty	(3542)	Rolling Meadows
Roth, Rowland	(3559)	Barrington
Ruth, Marlene	(3945)	W. Chicago
Rugg, Kate	(3525)	Chicago
Rukowski, R.	(3943)	Hillside
Ryan, Adele	(3534)	Rosemont
Saher, Linda	(3547)	Chicago
Saleoni, Helen	(3545)	Lombard
Salerno, Marie J.	(3559)	Evanston
Salmon, Marie	(1951-2)	Hindsboro
Salonzak, Frank	(3530)	Woodridge
Sanderson, A.	(3537)	Rochelle
Sanders, Steven	(3937)	Clarendon Hills
Santsgrosse, Adolph A.	(3551)	Skokie
Sappans, Jerry	(3531)	Chicago
Satterfield, Edgar	(1490)	McLeansboro
Sawyer, James H.	(3529)	Glenview
Sawyer, Judith L.	(3529)	"
Schakner, B. R.	(3943)	Chicago

Illinois

Scheffer, Bert	(3549)	Wheaton
Scheffer, Mary	(3549)	"
Schein, Fred	(3555)	Chicago
Schermandena, A. J.	(3944)	"
Schild, Jennifer	(3544)	Illinois
Schindlbeck, Gerald	(3936)	Aurora
Schlaf, Charles	(3559)	Des Plaines
Schmicelsey, D.M.	(3551)	Chicago
Schimpff, Wayne H.	(3525)	Lyons
Schlueter, Gertrude	(3526)	River Forest
Schmidtke, Bill	(1871)	Dolton
Schmitt, Michael	(3547)	Chicago
Schmuckie, Gretchen	(3549)	"
Schneider, James E.	(3532)	"
Schneider, Kathleen A.	(3532)	"
Schram, Frederick R.	(2780)	Charleston
Schreiberger, Corrine	(3534)	Woodstock
Schrrol, Eleanor B.	(3934)	Elmhurst
Schwartz, Roberta E.	(3548)	Chicago
Schwartz, William E.	(3548)	"
Schwers, Arthur	(1490)	McLeansboro
Scott, Davey	(1490)	"
Scott, Lois	(3536)	Rosemont
Scott, William C.	(3536)	"
Scribner, William M.	(1444-5)	Vandalia
Schrishuhn, D.	(4676)	Vermillion County
Schumburg, Beverly	(3932)	Chicago
Schumen, Robert M.	(3530)	Country Club Hills
Schurtz, R. M.	(3539)	Chicago
Schusler, M.	(3555)	"
Seaman, J. W.	(2275)	Arcola
Seifiest, L.	(3557)	Chicago
Sevausor, David F.	(3938)	"
Sharp, Howard F.	(3937)	Champaign
Shauver, Nanci M.	(3557)	Chicago
Shaw, Lillian	(3938)	Des Plaines
Shaw, Luther	(3938)	"
Shelton, Gloria J.	(3547)	Chicago
Short, Jeffrey R. Jr.	(326-7)	"
Shouba, G. L.	(3527)	La Grange
Shouba, Jack W.	(3527)	"
Shulman, Margaret A.	(3527)	Brookfield
Shupe, Ralph	(4012)	Wilmington
Siaritz, Sue	(3529)	Chicago
Sibley, Bonita K.	(3560)	"
Sibley, Richard K.	(3560)	"
Sidel, David L.	(3557)	"
Sillian, Edward S.	(3558)	Des Plaines
Simms, Bonnie L.	(3932)	Villa Park
Simms, Wayne	(3932)	"
Simon, Raymond J.	(3530)	Evanston
Skenger, John	(3554)	S. Holland
Skinner, Harold	(1490)	McLeansboro
Sklar, Susan	(3549)	Chicago

Illinois

Skorey, Carol	(3934)	Chicago
Slams, Verna	(1025)	Midlothian
Slothim, Elizabeth J.	(3931)	Chicago
Smidt, J.	(3933)	Pk. Ridge
Smith, Greg A.	(3528)	Willmette
Smith, James	(3531)	Chicago
Smith, Philip W.	(618)	Champaign
Smith, Phyllis L.	(3526)	Peoria
Smith, Ralph C.	(3526)	"
Smith, Roberta S.	(3941)	Chicago
Smith, W. C.	(3556)	Arl. Hgts.
Smolinsk, Helen B.	(3556)	Calumet City
Snarr, J. F.	(3526)	Evanston
Snydocker, Betty	(3550)	Chicago
Sol, Joseph J.	(3545)	Lombard
Sommerfield, C. F.	(3548)	Palatine
Souber, Ann	(3535)	Chicago
Soudek, Norman	(3531)	De Kalb
Soussan, Daniel	(3936)	Des Plaines
Soussan, Helene	(3936)	Des Plaines
Sout, Gail D.	(3939)	Chicago
Spenok, M.	(3542)	Clarendon Hills
Spevak, Helen	(3542)	Berwyn
Spiece, Marion & John	(3559)	Chicago
Spivy, William	(3546)	"
Sparth, Joseph	(3536)	Naperville
Stachura, C.	(3548)	Chicago

Stafford, Wilma C.	(3533)	Chicago
Stage, K.	(3552)	St. Charles
Stairko, Jane	(3556)	Northbrook
Staril, Paul	(3547)	Saunemin
Starkston, Joan	(3940)	Morton Gr.
Starkston, Melvin	(3940)	"
Starus, Chris	(3930)	Chicago
Steffen, Richard	(3934)	Blue Island
Stephens, Robert C.	(4227)	Naperville
Stephens, Suzanne	(4227)	"
Steuikus, Ouryta	(3945)	Chicago
Stewart, Lisa	(3937)	"
Stonelo, Walter	(3935)	Illinois
Storzbach, Vivian L.	(3548)	La Grange
Strandberg, Oliver	(3541)	Chicago
Strandberg, Taree	(3541)	"
Stranizek, Stephanie	(3943)	"
Strauch, Clarice	(3525)	"
Stringer, Anthony D.	(3550)	"
Stro, John	(3940)	"
Strong, Robert K. Jr.	(3540)	Illinois
Stuber, Bill	(490)	Kell
Studwill, Richard	(3560)	Chicago
Stueber, Laurie	(3554)	"
Sunt, Wayne J.	(3351)	"
Swanson, K.	(3553)	Lansing
Swanson, Kendall	(3532)	Highland Pk.
Sweeney, Bernard J.	(3529)	Chicago

Illinois

Sweeny, Arthur	(3543)	River Gr.
Swenson, Stephen	(3539)	Glenview
Syurh, T.	(3942)	Illinois
Szendroi, L.	(3558)	Chicago
Szpyle, Henry A.	(3931)	Paxton
Takef, N. F.	(3552)	Wilmette
Tankway, R.	(3529)	Chicago
Tanlires, Tony	(3556)	Illinois
Taylor, Phillip	(72-73)	Belleville
Terlok, Mary L.	(3941)	Oak Brook
Thiel, Pat	(3937)	Chicago
Tholl, John	(3550)	Worth
Thomas, Richard W.	(3942)	"
Thompson, Beverly	(3534)	Woodstock
Thompson, C. A.	(3548)	Finley Pk.
Thorsten, K. A.	(3934)	Schaumburg
Timm, Fred	(415)	Ireka
Timm, Gene	(SL 227-231)	Iuka
Tofani, A. Philip	(803-4)	Mt. Carmel
Tratt, E. M.	(3555)	Morris
Traupper, M.	(3943)	Chicago
Traylor, Marjorie S.	(3533)	Wilmette
Treichel, H. B.	(3542)	Glencoe
Trenson, Trudi	(3555)	Northfield
Trimble, Robert	(1481)	Monticello
Triuett, Robert Jr.	(2106-7)	Crestwood
Trocaln, Carolyn	(3533)	Chicago
Trudron, Mary J.	(3932)	Riverdale
Tsun-Huei Chen, Wm.	(1627-8)	Urbana
Tucker, Pat	(3932)	River Grove
Turchamk, C.	(3557)	Stickney
Turner, Barbara R.	(3524)	Long Grove
Tyson, Betty	(3538)	Chicago
Uhl, Diane R.	(3539)	Elk Grove Vill
Uisson, Thomas R.	(3530)	Des Plaines
Umlauf, David G.	(3935)	Barrington
Umlauf, Kathy	(3935)	"
Urbanelo, Wilmer	(3531)	Illinois
Urbanick, Ruth	(3941)	"
Umlauf, Elyse	(3935)	Barrington
Valendo, Joseph	(3933)	Berkeley
Valentine, Joe H.	(4601-11)	Greenfield
Van, Peter	(3547)	Illinois
Vandervoort, Frances S.	(962)	"
Vandiver, Jacqueline S.	(3527)	Bollingbrook
VanHevicks, P. A.	(3539)	Chicago
Vanlcots, Darrel	(3945)	Illinois
Varskys, Elsa	(3944)	Chicago
Varskys, Matilda	(3944)	"
Vasko, R. M.	(3550)	Cicero
Vasse, Sarah S.	(1186)	Brussels

Illinois

Vaughan, Reginald	(3543)	Maywood	Wauro, Theresa	(3937)	Chicago
Vermillion, John G.	(3555)	Oak Forest	Weaver, George F.	(4618)	Vandalia
Vitek, Laddie	(3554)	River Forest	Weeks, Thomas C.	(4052-4)	Chicago
Voelz, G.	(3546)	Waywood	Wegen, Henry	(3938)	"
Voelz, Jonathan E.	(3534)	W. Chicago	Weingirl, Mary T.	(3551)	"
Vogintas, D.	(3559)	Chicago	Weise, Giles B.	(2802)	Elmhurst
Voltz, Jane	(3930)	"	Weishaar, Dolores T.	(5368)	Algonquin
Vrbancic, Diane	(4041)	"	Weitemeyer, M.	(3555)	Chicago
Vrebtch, Ann	(3526)	Arl. Hgts.	Wellford, R.	(3535)	"
			Welsh, Ruth M.	(3527)	"
Wachenheim, Rich	(1189)	Quincy	Wenrich, M.	(3557)	Finley Pk.
Waddell, Susan	(3548)	Chicago	Wentzel, P.	(3558)	Itasca
Wadsack, Chas.	(3541)	"	Wessman, Ruth	(3945)	Oak Park
Waite, Ann M.	(3554)	Oak Brook	West, Terry	(3528)	Wash.
Walcuo, Mary	(3560)	Chicago	Wheaton, Bonnie E.	(3528)	Wheaton
Walker, Dorothy S.	(3551)	"	Wheeler, J.	(3539)	Hickory Hills
Walker, Kenneth R.	(3603)	Havana			
Walker, Ray	(3934)	Rolling Meadows	Wheeler, JoAnne	(3942)	Hines
			Whitburn, Shirley A.	(3535)	Chicago
Walters, J. A.	(3941)	Chicago	Whitburn, T. A.	(3535)	"
Wapoche, Patricia	(3934)	"	White, Richard R.	(3549)	"
Ward, T.C. Jr.	(3533)	Glimer	Wiener, Judith L.	(3531)	"
Warfel, John C.	(1786-7)	Tolono	Wiley, Ronald	(3550)	"
Warfel, Tyle K.	(1574-7)	Tuscola	Williams, Arthur	(3943)	Oak Park
Warner, Barbara	(3930)	Chicago	Williams, Carolyn E.	(3942)	Chicago
Warren, Leland	(4612-3)	Hindsboro	Williams, Jo A.	(3931)	"
Watson, David L.	(4048-9)	Westville	Williams, Richard	(3943)	Pk. Forest

Illinois

Williams, Steve	(1490)	McLeansboro
Willis, Anna M.	(3930)	Joliet
Willis, Thomas R.	(3930)	"
Willis, William J.	(3930)	"
Willis, William J. III	(3930)	De Kalb
Wilson, Don R.	(3933)	Clarendon Hills
Wilson, Jason B.	(1490)	McLeansboro
Wilson, Richard C.	(1339)	La Grange
Windsor, C. V.	(3553)	Skokie
Winer, Harold	(3931)	Chicago
Wish, Rena	(3559)	"
Wolfe, Josephine	(3556)	Melrose Pk.
Wolff, George W.	(3941)	Elgin
Wolnece, Carol B.	(3539)	Chicago
Wolnece, Kenneth M.	(3539)	"
Woltman, E.	(3930)	Evanston
Woltman, Laurie	(3930)	Evanston
Womer, Mary L.	(3559)	Chicago
Wood, Alfred	(4227)	Wheaton
Wood, Harlan M.	(3945)	Morton Gr.
Wood, M. D.	(3551)	Batavia
Wood, Romona	(3944)	Morton Gr.
Woods, Barbara	(3546)	Palos Hills
Woodruff, George H.	(876-7)	Joliet
Wopichauch, M. J.	(3556)	Chicago
Worthoe, Ryficfori	(3942)	Illinois
Wrench, C.	(3934)	Chicago

Wrencik, Lottie T.	(3934)	Chicago
Wright, Barbara A.	(3940)	Lyons
Wyarki, Tom	(3942)	Chicago
Yamih, J. R.	(3553)	Riverside
Yonker, Bill	(4227)	Wheaton
York, Russell C.	(1490)	McLeansboro
Young, Eula	(1491)	Tuka
Zabel, Pam	(3935)	Highland Pk.
Zabrobsky, Adrienne C.	(3527)	Glen Ellyn
Zapata, Helen	(3931)	Chicago
Zeh, Robert F.	(3933)	Addison
Zentgraf, H. W.	(3552)	Lk Forest
Zernes, S.	(3553)	Forest Pk.
Zohra, Bruce M.	(3526)	Brookfield
Zollinger, J. W.	(3537)	Hinsdale
Zollinger, R. A.	(3537)	"
Zwles, William	(3930)	Western Spgs.

Indiana

Allee, Enos E.	(4131-32)	Coatsville
Anderson, Nancy	(3860)	Indpls.
Anderson, W. T.	(2653)	Bedford
Aryor, V.	(3536)	Whitney
Ash, Joseph H.	(3322)	Greencastle
Bailey, Lila	(3534)	Vincennes
Barber, Jim N.	(1590)	Washington
Berquist, K. R.	(1062)	Merrillville
Bessa, A. J.	(3528)	Chesterton
Bicke, Anne	(3860)	Carlos
Bieker, L. W.	(441-42)	Munster
Birt, Norman L.	(2944)	Greencastle
Black, Denise	(3536)	E. Gary
Bland, LuAnne	(3860)	Indpls.
Bledoe, Carl H.	(3305)	Paoli
Bonness, Richard	(1607-8)	Clinton
Bottenfield, Jack L.	(808)	Vincennes
Brizendine, Chas. J.	(3529)	Merrillville
Bruns, Ralph C.	(2699-01)	Greensburg
Bryan, Paul C.	(331)	Munster
Bryant, John H.	(3553)	Hebron
Cantonwine, C. E.	(1621-2)	Greencastle
Capp, Fred B.	(3860)	Indpls.
Cherry, Joyce	(3558)	Hammond
Cherry, Kent	(3558)	Hammond
Clark, Willard F.	(2827)	Ft. Wayne
Crane, William T.	(1632-3)	Loogootee
Culbertson, Gail	(2967-8)	Terre Haute
Culbertson, Robert G.	(2969-70)	" "
Darnell, James W.	(2829-30)	Columbus
Darnell, Sally	(2831-2)	"
Davis, David S.	(2972)	Poseyville
Davis, Lois M.	(3860)	Indpls.
Decker, T. G.	(2683)	Bismarck
DeNardo, Ron	(3383)	LaPorte
Doan, Randall	(3305)	Paoli
Dudley, Delbert C.	(2699-701)	N. Vernon
Eggers, Augusta	(3937)	Whiting
Ernst, Genevieve	(3936)	Chesterton

Indiana

Ernst, John	(3936)	Chesterton
Eslinger, Ken	(1510-11)	Terre Haute
Fanverbough, Raymond F.	(3559)	Whiting
Feemster, Martha	(96)	Cambdg. City
Fisher, W. Merele	(3533)	Chesterton
Garden, Chris	(3305)	Paoli
Garsheveler, Charles	(3860)	Indpls.
Given, Sterling J.	(454-5)	McCordsville
Goldys, Stella	(3537)	Hammond
Goodman, John	(1829-30)	Indpls.
Graham, R. H.	(2995)	Southbend
Gron, Charles M.	(3860)	Indpls.
Guberman, Earl N.	(3533)	Wilmette
Handson, Kit	(3860)	Indpls.
Haas, Emily	(3528)	Gary
Hamilton, Judy K.	(3860)	Indpls.
Harker, Bernard	(1527)	Shoals
Hart, Mildred J.	(3860)	Indpls.
Hasting, David E.	(26-28)	Mt. Vernon
Hauk, Mary Ann	(3858)	Indpls.
Hemminger, Cindy	(3536)	E. Gary
Herliey, Edward W.	(3860)	Indpls.
Hishy, J. T.	(3860)	"
Holt, Marilyn	(3940)	E. Chicago
Holtman, Ralph E.	(2699-01)	Seymour
HYML	(3931)	Valpariso
Jakubouie, Nancy	(3550)	Whiting
Jennings, Harry J.	(3525)	Valparaiso
Johnson, James	(3860)	Indpls.
Jones, Fern V.	(3524)	Hmd.
Jordan, David	(5323)	Fillmore
Kammer, F. V.	(3536)	Whitney
Key, Robert	(2732)	Princeton
Kibler, Phillip W.	(3305)	Paoli
Kiewitt, Richard	(2699-01)	Seymour
Kjelstrom, June R.	(3554)	Hobart
Krofta, Joseph G.	(3541)	Beverly Shores
Langbehr, Marie	(3535)	Gary
Lyon, Mark J.	(3860)	Indpls.
Malcomb, L. E.	(2699-01)	N. Vernon
Martin, D. Lester	(4771-72)	Pence
McLain, Terry	(3860)	Indpls.
McWhirter, Mary	(1143-4)	Bloomington
Meier, Paul	(1707-10)	Muncie
Mertovich, Mary	(3538)	E. Gary
Meyer, Robert	(2969)	W. Lafayette

Indiana

Miller, C.A. Strouth	(3860)	Indpls.
Miller, Roy F.	(2699-01)	Holton
Mills, Marriss	(1853)	W. Lafayette
Miner, Arvella	(3936)	Gary
Miner, Leslie F.	(3936)	"
Mintore, Harold	(3305)	Paoli
Moore, Leroy	(4477)	Lafayette
Moser, Glen	(3548)	Bluffton
Mosier, David C.	(2072-73)	Columbus
Nelson, Marian	(1940)	Greencastle
Ogle, Ruth & Marvin	(1731-2)	"
O'Hair, Fred L.	(39-45)	"
Ondrowich, Marilyn	(3938)	Chesterton
Ondrowich, Rich	(3938)	"
Ormond, Lois O.	(2520-2)	Terre Haute
Parks, Becca S.	(2901-2)	"
Parks, Marshall E.	(2903-4)	"
Parmenter, Penny	(1734-5)	Attica
Poucek, Dorothy	(3560)	Whiting
Regnier, Gerald	(3549)	Highland
Reller, William H.	(1161-2)	Richmond
Richee, Edith	(3860)	Indpls.
Ristow, Mark	(3569-70)	Carmel
Robertson, Laurence	(3860)	Indpls.
Rogers, Vickie	(3536)	E. Gary
Ross, Robert & Donna	(2775)	Brazil
Schwabel, Ronald C.	(1264)	W. Lafayette
Sears, Stanley F.	(1764-5)	Fillmore
Segal, Michael S.	(3536)	Golbart
Shirley, Kent A.	(512)	Griffith
Silway, Gary G.	(3860)	Indpls.
Smith, James T.	(3305)	Paoli
Smith, Ronald	(4539)	Bristow
Spinak, Dolores	(3940)	E. Chicago
Stangland, L.	(587)	LaOtta
Steele, Jacquetta	(909)	Plesant Lake
Stonerock, Charles E.	(2278-79)	Winchester
Sturges, Edward	(3860)	Indpls.
Sublette, David L.	(1568)	Greencastle
Taylor, Roy Jr.	(2699-01)	N. Vernon
Tyrell, H. P.	(3553)	Hebron
Wade, Emily M.	(3301)	Bloomington
Wank, I. A. Jr.	(3860)	Indpls.
Weisbrodt, Larry	(3542)	Hammond
Wetmer, Lance R.	(3860)	Indpls.
Wilkins, Clint	(4625-26)	Linden
Willer, R. G.	(4798-99)	Pine Village

Indiana

Willis, A. C.	(3306)	Kokomo
Wilson, Max D.	(3305)	Paoli
Winters, Dennis R.	(2335)	Ft. Wayne
Wright, Gladys	(1343)	W. Lafayette
Young, Joseph E.	(3533)	Hobart

Iowa

Gallagher, James V.	(5568-69)	Jesup
Gillam, Jim	(1910)	Des Moines
Houseman, Vivian	(3540)	Clinton
Moore, Sally B.	(3512)	Grinnell
Reed, Loren J.	(3938)	Dubuque
Siders, Lola D.	(2575)	Davenport
Smith, Mary J.	(4790-91)	Sioux City
Smith, Scott J.	(4792-93)	"

Kansas

Babcock, Nathan	(3323-26)	Hiawatha
Bartlett, Lee	(3689)	Osawatomie
Boates, Russell D.	(2616)	Liberal
Bock, John	(2205-07)	Elmdale
Caldwell, Glenn	(3680)	Garnett
Carlson, Mark E.	(988)	Lindsborg
Cleveland, Duane	(3680)	Lane
Cobb, Walter J.	(5291)	Dunlap
Comer, C. W.	(717)	Emporia
Denham, Rex R.	(4221)	Strong City
Gaddie, Frank	(2786)	Cottonwood Falls
Glenville, Robert I.	(2786)	"
Gray, Georgia N.C.	(4702)	Topeka
Haucke, Frank "Chief"	(4263)	Council Grove
Jack, Nancy C.	(4299)	Kansas City
Jacob, Cleo C.	(1920-22)	Americus
Kelsey, J. R.	(2457-60)	Ark. City
Keysey, Scott W.	(522)	Rossville
Lehmann, Otto	(3889)	Lincolnville
Lentell, J. V.	(2469)	Wichita
Love, James R.	(5450)	Topeka

Kansas

Menninger, Karl	(2752) (2753)	Topeka
Milne, Thomas M.	(2501)	Kansas City
Palmer, Leo Jr.	(3977)	Strong City
Patton, Richard	(2786)	Cotnwd Falls
Peine, Maurice J.	(3680)	Greeley
Phillips, Lamar W.	(630)	Ottawa
Phipps, Lloyd N.	(2786)	Cotnwd Falls
Prochaska, Harold	(4508)	Dunlap
Ray, Norman	(2080)	Baxter Spgs.
Ryman, Royal R.	(4529)	Dunlap
Schirf, Larry J.	(1970)	Wichita
Schmidt, Janet N.	(3574)	Overland Pk.
Smith, Robert L.	(170)	Lawrence
Stout, Elmore G.	(2786)	Cotnwd Falls
Tillotson, Keith	(1782)	Manhattan
Triemer, Norman	(4794-95)	Council Grove
Wilson, W. W.	(3680)	Osawatomie
Woodard, F.O.	(8-25) (326-339)	Wichita

Kansas

Yeager, George	(2786)	Cotnwd Falls

Kentucky

Blair, Robert A.	(495)	Corbin
Coomes, Joseph L.	(2362)	Owensboro
Davis, Wayne H.	(822-23)	Lexington
Farmer, H. B.	(3013)	Stanton
Gorman, Patrick H.	(4254)	Prospect
Hollenback, L. J. III	(1207-8)	Louisville
Hepler, Winifred	(3010-12)	"
Koester, E. Leo	(3885-6)	"
Long, John M.	(261-62)	Ft. Thomas
McCall, C. C.	(4347-8)	Madisonville
McGee, C.	(337)	Dry Ridge
Miller, Mike	(744)	Murray

Kentucky

Rommel, Rose M.	(265)	Louisville
Rowe, Robert W.	(186)	Frankfort
Smith, Austen J.	(5696-9)	Maysville
Travis, N. M.	(3594)	Madisonville
Westman, Roger C.	(1791)	Lexington

Louisiana

Bryan, Richard W. Jr.	(1245-6)	Alexandria
Clark, Bernard	(1807-10)	Ferriday
Cotton, Nolan R.	(2909)	Jena
DeKeyzer, J. A.	(1638)	Alexandria
Dell, Dorothea F.	(884)	Metairie
Dodder, Elizabeth	(1906-8)	Bossier City
Dodder, Thomas	(2016-9)	"
Falkenheiner, Doris	(4238-40)	Baton Rouge
Fontenot, Carl E	(3393-5)	Lk. Chas.
Foster, David S.	(1087)	Lafayette
Gibbs, Byron	(5750)	Shreveport

Louisiana

Haar, Herbert R.	(300-309)	New Orleans
Herke, Joan F.	(1000-1)	Baton Rouge
Huenfeld, Fred Jr.	(4743-6)	Monroe
Kohl, Gail P.	(3887-8)	New Orleans
Post, Harry	(1160)	Westwego
Shortle, Robert L.	(2086-90) (5498-5502)	New Orleans
Smith, W. D.	(1465)	Amite
Stroud, Virginia	(2098)	Baton Rouge
Sturchlik, Stanley R.	(2909)	Jena
Tannehill, Murphy A.	(2909)	"
Thompson, Richard S.	(2909)	"
Woolsey, William E.	(1237-8)	Lk. Chas.

Maine

Danforth, Edward J.	(1082-3)	Orono
Maass, Arthur	(4769)	Cambridge
Noyes, G. A.	(1322-3)	Bangor

Maryland

Austin, Frederick	(246-7)	Bethesda
Bare, Mike	(000260)	Baltimore
Beckstrom, Marta	(000260)	"
Behr, Armand	(154-157)	Bethesda
Beradisco, Michael	(000260)	Baltimore
Blom, Karen	(000260)	"
Calder, Ruth H.	(883)	"
Campbell, Bruce	(000260)	"
Chalmers, Nancy	(000260)	"
Ciotta, Michael	(000260)	"
Clapp, Philip F.	(252)	"
Cooley, Nellie G.	(299)	"
Crowley, Michael	(000260)	"
Dalgleish, Barry	(000260)	"
Davenport, Kimberly	(000260)	"
Derfizsse, Carl B.	(000260)	"
Diter, Darby J.	(000260)	"
Eddison, Maurice	(000260)	"
Edel, Charles	(000260)	"
Etner, Craig R.	(2391-3)	New Balto.
Griffith, Carol F.	(996)	Wheaton
Grose, Stillman R.	(403)	Edgewater
Hanke, Steve H.	(82-91) (4704-16)	Baltimore
Holt, James E.	(2445)	Highland
Hopkins, George E.	(000260)	Baltimore
Johnson, A. Reid	(5322)	Towson
Joli, Nanette	(000260)	Baltimore
Jopson, Edward	(000260)	"
Katz, Barry	(000260)	"
Kinter, W. L.	(259-260)	"
Kirk, Neville T.	(346-7)	Annapolis
Kyle, Fred	(000260)	Baltimore
Kuster, Mr & Mrs Philip	(1383)	Severna Pk.
Larrimore, Jo A.	(000260)	Baltimore
Lee, Sirkka T.	(5326)	"
Libertini, Gina	(000260)	"
Mann, Monica E.	(000260)	"
Martinez, Adrian B	(000260)	"
McCann, R. Harold	(411-12)	Arnold
McClanahan, Mari	(000260)	Baltimore
McLouch, Meredith C.	(000260)	"
Mileto, Anthony F.	(645-47)	Annapolis
Mueller, Robert F.	(305)	Lanham
Nimeroff, Phyllis	(000260)	Baltimore

Maryland

Parcher, David W.	(000260)	Baltimore
Perin, Lawrence	(197-98)	"
Plakotoris, Steve	(000260)	Baltimore
Price, Sharon	(000260)	"
Riess, George H.	(000260)	"
Robbins, Eleanor C.	(281)	Laurel
Robinson, Gloria	(000260)	Baltimore
Rosnow, Nancy	(000260)	"
Sayre, Janice H.	(000260)	Baltimore
Sayre, Silvia	(000260)	"
Shook, William A.	(000260)	"
Shreiner, Andrea	(000260)	"
Shyler, Henry P.	(000260)	"
Smith, Neale	(858)	"
Steinbergh, Pat	(000260)	"
Supelstein, Marsha	(000260)	"
Swathmore, Carlton A.	(241)	Adelphi
Theiss, Gary	(802)	Clarksburg
Thompson, Nancy L.	(000260)	Baltimore
Thomsen, Laura B.	(1979)	Adelphia
Tillman, Joan C.	(000260)	Baltimore
Trifithen, D.	(000260)	"
Viamonte, Lucy	(000260)	Baltimore
Watson, Genna	(000260)	"
Weetman, Clement E.	(516)	Hyattsville
Wegrauch, Charles R.	(000260)	Baltimore
Weinstein, Phyllis	(000260)	"
Werzell, Linnia	(000260)	"
Woodland, Fred Jr.	(000260)	"
Zuckerman, Ben	(1888)	College Pk.

Massachusetts

Avery, Abigail	(518)	Lincoln Center
Baxter, Jean S.	(1346)	Lexington
Brownell, Arthur W.	(3620-2)	Boston
Burke, Patricia M.	(985)	Natick
Burnbam, Gene	(4183)	Westboro
Caless, Donald H.	(714-16)	Chelmsford
Cohen, Daniel	(1200)	Brookline
Dailey, James F.	(95)	Woburn
Damon, David	(776-8)	Melrose
Duckworth, Alma R.	(423)	Springfield
Hanley, Wayne	(311)	Lincoln
Heineman, Donna J.	(302)	Scituate
Krefetz, Elliott	(737)	Chelsea
Lambe, T. Wm.	(4333)	Cambridge
Lautenschleger, Margaret	(2467-68)	Brighton
Maass, Arthur	(DC II 12-20)	Cambridge
Marglin, Stephen A.	(DC II 237-250)	"
Martin, William H.	(1318-19)	Topsfield
McDonald, Stanley M.	(5451)	Sherborn
McQuillan, Thomas C.	(4412-4417)	Monomet
Miller, Lynn	(2070)	Amherst
Mueller, Allan J.	(428-30)	"

Massachusetts

Oxford, Susan	(339,1733)	Natick
Paine, Harlan Jr.	(458)	Marshfield
Sassamon Newspaper	(342)	Natick
Tower, Leonard Jr.	(5700)	Boston
Turner, Edmund K.	(4333)	Cambridge
Viscussi, W. Kip	(DC II 143-173)	Somerville
Vivian, John M.	(1980-1)	Petersham
Wilson, Sylvia D.	(963-4)	Brighton

Michigan

Asiala, Linda S.	(1802-3)	Spring Arbor
Baltz, Wayne I.	(1996)	Traverse City
Blanchard, Howard	(2349)	Rochester
Brown, Graydon B.	(2947-49)	Onondaga
Bullard, H.E.	(1619)	Berkley
Cherup, Gregory H.	(658)	Dearborn Htgs.
Chilton, Ralph E.	(2359) (5587-88, 5609-10)	Farmington
Clark, W. W.	(4665-66)	Parma
Cook, Judith A.	3640)	Rochester

Michigan

Copeland, Ann	(1814-15)	Jackson
Croteau, Norine	(3530)	Hanco
Davis, Edwin	(2682)	Dearborn
Davis, Edwin	(5587-8, 5605-6)	Farmington
DeNeyter, Ruby	(28 8)	Holland
Dittis, Robert	(3668 -70)	Parma
Doggett, William F.	(363-4)	Union Lake
Earney, F. C.	(424)	Marquette
Eggebriche, Jo Ann	(3535)	Hammond
Ferda, Sheldon A.	(5611-12)	Michigan
Ferguson, Edward	(570)	Mason
Flanagan, B.	(2418) (5587-8, 5624-25)	Livonia
Fonda, Sheldon A.	(2421, 5587-8)	Detroit
Fox, Stephen	(625)	Northwoods
Geerlings, Glenn	(597)	Zeeland
Goode, J. M.	(1828)	Detroit
Groenhof, Janet	(3535)	Zeeland
Gutten, G.	(3538)	Wyoming
Hauer, Wolfgang F.	(1528)	Detroit
Have, Leona Ten	(3538)	Holland
Henning, Russell	(2441) (5587-8, 5626-7)	

Hickman, Andrew M.	(892-3)	Saginaw
Hock, Ray	(2443)	Jackson
Holdsworth, William M.	(2444)	Rochester
Holtz, Katherine	(2446)	Sterling Hgts.
Hoover, David M.	(3017-24)	Ann Arbor
House, George W.	(3038)	Jackson
Kraft, Kenneth J.	(335)	Chassell
Lancaster, B. E.	(2612, 5587-8) (5607-8, 5756)	Port Huron
Lancaster, Bruce E.	(2466, 5587-8) (5621-2)	Carleton
Langeloh, Robert	(499-500)	Roseville
Lines, Russell		Spring AR
Linis, Kenneth	(2473)	Brooklyn
Livingston, William	(1692-4)	Dearborn
Marriett, K.	(2508)	Plymouth
Martin, Randy	(3112-13)	Bay City
McDonald, Mary Lee	(1317)	Plymouth
McGreen, Daniel S.	(839)	Rochester
McKaye, Frank	(3537)	Cassopolis
McLarty, C. G.	(609)	Pontiac
McWilliams	(790)	Ann Arbor
Messner, Clarence J.	(1711-13)	"
Mitchell, Nora J.	(1426)	Lansing
Monsatt, Robert	(5587-8, 5619-20)	Plymouth

Michigan

Myers, A. S.	(3959)	Grand Rap.
O'Leary, Linda	(3226)	Fraser
Otting, Lenore	(3538)	Holland
Pearce, Hole	(476)	Coldwater
Piotrowski, Edwin D.	(2528, 5587-8) (5615-6)	Pontiac
Puffer, K. Hart	(431)	So. Boardman
Purdy, Elizabeth	(2533)	Rochester
Quick, Howard	(340)	Taylor
Radak, Laurenie	(1744)	Huntington Woods
Rea, Simon	(2554-56)	Warren
Reed, Leone Allen	(3995)	Jackson
Reilly, Raymond E.	(1452-4)	Sault Ste. Marie
Roberts, Walker	(199-200)	East Lansing
Sax, Joseph L.	(2274)	Ann Arbor
Schroeder, Wm. & Irene	(2326)	Brooklyn
Schultz, Leonard R.	(1872-4)	Albion
Shaw, H Arvelia	(4533)	Jackson
Stanard, Chris	(3528)	Bridgmore
Steele, Ella J.	(2588)	Rochester
Stewart, R. E.	(862-3)	East Detroit

Michigan

Teller, Theron	(2104)	Jackson
Temple, Fred E.	(1479)	Dearborn
Theunissen, William	(288)	Mt. Pleasant
Thorniley, Ethel W.	(1883)	Detroit
Thumm, J. L.	(1570-1)	Mancelona
Trombley, Gloria	(2590, 5587-8) (5617-8)	Roseville
Truckner, William G.	(3597)	Dollar Bay
Vail, Curtis F.	(2592)	Lathrup
Vaughn, Sue	(3540)	Grand Rpds.
Voss, Edward G.	(292)	Ann Arbor
Wattles, Erbin	(2602) (5587-8, 5613-14)	Grosse Pointe Park
Willard, George W.	(1483)	Ann Arbor

Minnesota

Alson, Norman V.	(1585)	Robbinsdale
Belisle, Jon	(268)	St. Paul
Dietel, John	(3945)	MPLS
Eaton, John G.	(506-7)	Duluth

Minnesota

Gayner, Steve	(827)	Minn.
Goldberg, M. G.	(273)	St. Paul
Janecek, Jerome J.	(3445)	Grand Rapids
Lake, Roger & Joyce	(1133-34)	St. Paul
Olson, Norman V.	(807)	Robbinsdale
Osborn, Thomas C.	(3227-8)	Grand Rapids
Peck, John H.	(459)	St. Cloud
Rubens, Donna	(4001-06)	Minn.
Stenlund, Milt	(648)	Grand Rapids
Wieczorek, Jack & Jean	(1046-48)	Minn.
Zinn, Chas. A.	(419)	"

Mississippi

Arner, Dale H.	(539)	State College
Arover, Dale H.	(539)	"
Bennett, James A.	(2038)	Starkville
Busbee, Raymond L.	(1620)	Hattiesburg
Crawford, Walter Jr.	(2038)	Starkville

Mississippi

England, Geo. Del	(2038)	Starkville
Evans, S. R. Jr.	(720)	Jackson
Farrell, Michael P.	(2039)	MS State
Floyd, Randy	(2419-20)	Grenada
Hartsog, Deb W.	(2038)	Starkville
Heirs, David & Gerri	(2038)	"
Hill, I. C.	(4268-70)	Phila.
Hurst, George A.	(539)	MS State
Hurst, Ralph E.	(2038)	Starkville
Jackson, Jerome A.	(3040)	"
Landreth, Kenneth S.	(2038)	"
Lewis, K. I.	(539)	MS State
Lieheus, L.	(539)	"
Lieheus, W.	(539)	"
Liming, Glenn	(1408)	Starkville
Litty, R.	(2038)	MS State
McNauthton, James	(2038)	Starkville
Pepper, Jack W.	(4490-4501)	Jackson
Saddler, James	(539)	State Col.
Watkins, Roy M.	(2038)	Starkville
Webster, Burton S.	(4619)	Brooksville
Weigman, Diana L.	(2039)	Starkville

Mississippi

Wolfe, James L.	(2038)	State Col.
Wright, James & Loraine P.	(2039)	Starkville

Missouri

Anderson, V. L.	(2579)	Webster Co.
Anent, Bert	(3309)	Pleasant Hill
Bates, William D.	(4163)	Springfield
Beard, Dan	(1597-9)	"
Belobraydie, A. J.	(4648-9)	St. Charles
Bertz, C. R., Sr.	(4170-1)	Lexington
Bouldin, Harold	(2912-16)	Rogersville
Brammeier, Herb Jr.	(4181)	St. Louis
Bray, Phillip	(3357)	Cameron
Bredwell, Mari	(5516)	Sedalia
Brooks Gas Company	(2666)	Marshfield
Brown, Ellis Jr.	(657)	Seldalia
Burger, John F.	(444, 445–51)	University City
Callan, Elmer	(71)	Union
Chott, Joseph R.	(1806)	Ferguson
Clair, Jack	(2579)	Webster
Clemens, Mark G.	(176-79)	Affton
Cluedurs, Lewis E.	(2579)	Webster
Cordonnier, Lerna	(1498)	Cape Girardeau
Creed, Leon	(4213) (5423)	Cairo

Missouri

Crowe, Anna	(4215)	Fordland
Crowe, Doyle	(4214)	"
Cunningham, Chas P.	(2579)	Webster Co.
Darby, D. F.	(3653-4)	Springfield
Davis, Orven E.	(2579)	Webster
DeGolier, Ronald C.	(1297)	Kansas City
Dieffenbach, Wm. H.	(1640-1)	Jefferson City
Doerr, Robert M.	(SL 53-56)	Rolla
Dunnard, Bob	(88-95)	Lincoln Cnty
Edward, Oral	(2579)	Webster Co.
Englert, Lizabeth	(3679)	Bridgeton
Fanter, Mae	(1651) (4241)	St. Louis
Fraker, Eugene	(2579)	Webster
Fredrickson, Leigh H.	(780)	Puxico
Fry, James	(3397)	Hartsburg
Grade, Irvin L.	(662)	St. Louis
Hart, Kirby E.	(3002-4)	Houston
Hartley, Marguerite	(2715-6)	Fordland
Hawksley, Dorothy	(3006)	Warrensburg
Hein, Sylvia	(3007-9)	Gladstone
Heins, David & Gerri L.	(2037-9)	Starkville

Missouri

Hollenbeck, Rex	(77-85)	Monroe
Hupardes, James	(5585-6)	Eldon
Hursey, W. E.	(4296-8)	Strafford
Isenberg, Mark	(3039)	Columbia
Jackson, J. J.	(5314)	Marshfield
Kassab, Anthony & McCoy, Robert J.	(4354)	Joplin
Kaufman, Marion	(5713)	Columbia
Kerr, Jackie E.	(1125)	Springf'ld
Kistine, Robert W.	(2579)	Webster
Lamb, H. M.	(5325)	Columbia
Lambeth, Larry W.	(5114)	Springf'ld
LaMonica, Richard	(1210-11)	St. Louis
Lees, John & Susan	(3056-7)	Fulton
Lehr, George W.	(5115-6)	Jackson Cnty
Little, Mildred C.	(2471-2)	Fordland
Manson, L. E.	(4418)	Brunswick
Marshall, Dan	(1542-3)	Springf'ld
Martin, Bernard E.	(4419)	Kan. City
Maxsen, Donald	(1847-8)	"
McClain, Jim	(348)	Harrisonville
McFall, Elbert	(3353)	Albany

McKinney, John W.	(2493)	Cape Gir.
Metzinger, Robert E.	(3493)	Joplin
Midgley, Myrle E.	(1424-5)	St. Louis
Murphy, Dudley C.	(1551-2)	Springf'ld
Myers, George R.	(1321)	Parkville
Patten, Edsel	(3353)	Albany
Potter, Jamey	(115)	Carthage
Powell, Sheldon	(3240-2)	Higginsville
Rast, R. R.	(2579)	Webster
Ray, Walter Jr.	(2579)	"
Renner, Joe	(2579)	"
Rennie, Ernest	(2579)	"
Richman, Eric	(1225-6)	Columbia
Rooks, Pam	(489)	Warrensburg
Sawyers, Charlotte J.	(1168)	Parkville
Schuster, John E.	(3278)	Unionville
Schweizer, Chas. B.	(SL 225-6)	St. Louis
Seddon, John W.	(4788)	"
Severson, John G. Jr.	(751-2)	Ballwin
Smith, Gilbert R.	(2579)	Webster Cnty
Sprick, Gary G.	(4518-9)	Columbia
Steinbach, Robert W.	(2096)	Kansas City
Stokely, David	(3289)	Pop. Bluff
Stone, Lincoln	(2097)	Rogersville

Missouri

Strain, D. R.	(2579)	Webster Co.
Strucktemeyer, Oscar	(4550)	Lexington
Sullivan, Mark	(1569)	Jefferson City
Summa, Glee	(3353)	Albany
Summers, Clifford	(SL 114-18) (382-A-384)	Jefferson City
Swift, James V.	(795-8)	St. Louis
Tuchler, Dennis J.	(328)	"
Turlin, Carl D.	(378)	Cape Gir'deau
Viehland, Dennis	(1038)	Columbia
Waite, Ivan L.	(1039-41)	Kansas City
Walker, Rod B.	(4051)	Perryville
Ward, Claude	(1885)	Fordland
Weis, Hazel H.	(4796-7)	St. Louis
Wester, Nancy	(1271-2)	Fordland
Woltjen, Duane W.	(SL 31-38)	Manchester
Wonnell, Leonard D.	(2607)	Grandview
Yahn, Jude S.	(2608-11)	Florissant
Yamnitz, Delmar	(SL 57)	Owensville

Montana

Clark, Rexford J.	(1353)	Billings

Montana

Eversman, Tom	(2351-4)	Bozeman
Hazeltine, Ben M.	(233)	Rolson
Hicks, Leon	(5758)	Billings
Holton, George D.	(4292)	Helena
King, John E.	(1688-9)	Seeley Lake
Lind, Carl	(525-6)	Billings
Moen, L. J.	(2504)	Kalispell
Phelps, James	(2763)	Billings

Nebraska

Brammer, Jens	(1611-2)	Hastings
Brammer, Sharon	(1613)	"
Carter, Mary	(361-2)	Omaha
Gorton, Richard	(4694-7)	Lincoln
Hoxie, Dwight T.	(1668-9)	Gretna
Percioal, Elden	(1324-5)	Sutton

Nebraska

Skinner, Lloyd E.	(1265-6)	Omaha
Spangler, Stanley	(860-61)	Grand Island
Varner, D. B.	(4038-40)	Lincoln

Nevada

Boyd, Jack L.	(979-81)	Halleck
Couch, Dwight E.	(2305)	Boulder City
Fischer, Virlis L.	(399)	Las Vegas
Ford, Samuel M.	(344)	"
Schan, Irving A.	(169)	"

New Jersey

Ayward, G. M.	(2657-9)	Princton
Baumol, William	(3335-47)	"
Bertzel, Barbara	(2942-3)	Plainfield
Bockes, Wm. T. & Olga T.	(1244)	No. Caldwell
Brady, Sharon Ann	(443)	Rahway
Ciak, Josephine E.	(543)	No. Arlington
Clark, Ruth B.	(1248)	Plfd.

New Jersey

Cobb, Ahira	(3639)	Princeton
Graves, Diane T.	(492-3)	"
Heinze, Wayne	(890-1)	Kearny
Lamb, Albert R. Jr.	(3476-81)	Englewood
Letts, Christopher C.	(5449)	Tenafly
Lexauer, August A.	(341)	Cherry Hill
Litch, Robert B.	(1409-10)	Barnegat Lt.
Lutz, Karl E. Jr.	(4768)	Wyckoff
MacAlpine, Barbara	(427)	Princeton
Millis, Edwin S.	(3497-3501)	"
Mark, Paula E.	(5336)	Greencastle
Melack, Michael	(1145)	Berkely Hgts.
Meyer, Joseph J.	(842)	Glassboro
MacMurray, David	(3489)	
Nimmo, George	(905-06)	Warren
Prayzicl, Elise M.	(703-4)	Freeleald
Price, Ronald J.	(3253)	Englishtown
Pringle, Laurence	(1224)	Cresskill
Rooney, Victoria M.	(89-90)	Bloomfield
Rugg, W. Donald	(1327-8)	Princeton

New Jersey

Schindler, G.E. Jr.	(DC II 200-205)	New Providence
Ward, Roy L.	(620)	Paterson
Weisbrod, Elsie E.	(1983)	Westmont

New Mexico

Burnett, Doc. H.	(308)	Albuquerque
Douglass, Robert M.	(300)	Las Vegas
Draper, B.	(824)	Santa Fe
Long, Rebecca & Richard	(832)	Santa Fe
McPharlin, Marjorie B.	(1547-8)	"
Metzler, Richard C.	(148)	Albuquerque
Reynolds, S. E.	(2557-66)	Santa Fe
Ross, Jim	(306)	Alamogordo
Thacher, Philip D.	(2282)	Albuquerque
Wasson, H. Reed	(2801)	Zuni
White, John	(2804-5)	Santa Fe
Young, Fern E.	(878)	Albuquerque

New York

Arlt, Edith	(1586-7)	Maspeth
Bartram, Stanley F.	(3334)	Ballston Spa
Bernhard, Robert A.	(1997)	Sands Point
Biasucci, John W.	(690)	Rego Park
Bouck, Warner W.	(2208)	Albany
Brooks, Peter	(3358)	New City
Brusdeilins, Lorraine J.	(1496-7)	Oneonta
Butler, Joseph H.	(3366-71)	Endicott
Carro, John E.	(3630)	Hampton Bays
Du Bois, Marilyn M.	(4223-24)	Scotia
Flick, Arthur B.	(3392)	West Kill
Fiisik, A.	(1088)	Stony Point
Frankenfelder, Maxine	(332)	Mamaroneck
Gascinsk, Paul	(272)	Schnectady
Grunebaum, Alix M.	(1915)	White Plains
Gwofousky, Sergei	(2710)	New York
Jeannotte, Constance	(1313-4)	Clinton Corners
Jessen, Susan	(93)	NY City
Jones, George A.	(1835-7)	Port Jervis
Jones, Stephen	(72)	Walton

New York

Kaidy, Mitchell	(76)	Rochester
Kelly, J. H.	(2249-50)	Fishkill
Lauden, Franklyn K.	(2049)	Bronxville
Lehman, Edgar & Elizabeth	(336)	Larchmont
Liddell, Donald R. B.	(2470)	New York
Mattice, Hilda	(2749)	N. Blenheim
Maxwell, G. R.	(1701-2)	FPO, NY
Munzer, Martha E.	(351-2)	Mamaroneck
New, John G.	(1148-49)	Oneonta
Nilson, Barbara A.	(1258-59)	Pound Ridge
Pangine, Jo A.	(278)	Schnectady
Reetz, Gene R.	(4510-11)	Ithaca
Resner, Sidney A.	(461)	Scarsdale
Rockefeller, Laurance	(2770)	New York
Rusch, Ruth	(3276)	Peekskill
Sabrick, Tim	(282)	Schnectady
Saunders, Patricia	(3573)	Oneonta
Schneider, L.L.	(854)	New York
Siedris, James	(3285)	Bronx
Simonsen, Francis	(1024)	Lk. View
Shepherd, Peter	(677)	New York

New York

Sherman, Ira M.	(955)	Brooklyn
Stevenson, Richard C.	(1031-2)	Angola
Strume, David	(377)	Holland
Traver, Donald L.	(417)	Webster
Valentine, Bonnie L.	(3300)	S. New Berlin
Weaver, Robert E.	(1053-4)	Syracuse
Weingartner, Mathilde P.	(1045)	Staten Island
Wiese, David B.	(2603-4)	Poughkeepsie
Wohebach, James J.	(4059-60)	Wappingus Falls
Wood, Stanley J.	(1340)	W. Fulton
Woods, Robert J. & Mark J.	(293-4)	Schnectady

North Carolina

Ambrose, Bob	(4353)	Raleigh
Becker, Marjorie	(1061)	Durham
Bienias, Ronald M.	(1198)	Pope AFB
Bixler, Carol	(1199)	Durham
Blackwelder, Brion	(768-70)	"
Blackwelder, Patricia L.	(879-80)	"
Bulwinkle, Lewis	(3359-60)	"

North Carolina

Byrd, Sam Jr.	(4353)	Smithfield
Carowan, Glenn A. Jr.	(4352)	Raleigh
Chappell, H. N.	(4353)	"
Cheek, John T.	(1247)	Durham
Clark, Philip	(4352)	Raleigh
Clark, Roger	(4351-3)	"
Collins, James A.	(3375-6)	Hendersonville
Cuddy, Peggy S.	(1817)	Raleigh
Davis, Roy	(466-7)	Asheville
Diehl, Drew S.	(2835-6)	Durham
Dietzel, Michael W.	(4352)	Raleigh
Duris, Alex J.	(638-44)	Hendersonville
Eggler, Dorothy S.	(2024)	Swannanoa
Foster, Kevin O.	(4352)	Raleigh
Heitzman, William C.	(4352)	Raleigh
Herman, Thomas D.	(4352)	"
Hopkins, John R.	(4352)	"
Hufschmidt, Maynard M.	(5092-100)	Chapel Hill
Johnson, T. Ruffin Jr.	(2456)	Smithfield
Jordan, Mike	(4353)	Raleigh

London, Lawrence F. Jr.	(2052)	Chapel Hill
Lyon, Joseph T. III	(4352)	Raleigh
Mallord, Larry E.	(4352)	"
Manley, James L.	(4344-45)	Asheville
McCollum, J. Keith	(4352)	Raleigh
Mitchell, James	(745)	Charlotte
Morris, Watson	(183-4)	Chapel Hill
Poole, Harold B. Jr.	(3981-82)	Salisbury
Rollins, Carolyn J.	(4353)	Raleigh
Sayward, W. S.	(1023)	Charlotte
Selinger, Rabbi M.	(187)	Kinston
Shelley, Rowland M.	(1336)	Raleigh
Short, Bruce F.	(4352)	"
Smiley, John H. Jr.	(513)	Wilkesboro
Smythe, Robert B.	(4542)	Carrboro
Spanel, Jane A.	(5365-66)	Durham
Strider, J. Robert	(4352)	Raleigh
Taylor, Anne	(5367)	"
Thomas, Sam R.	(865-6)	Forest City
Whitmyre, Gary K.	(381)	Durham
Womack, Bernard J.	(1886)	Mill Spring
Wood, Brian	(4553)	Raleigh

North Dakota

Agre, Edward O.	(3054)	Bismarck
Aho, Vicki	(3053)	"
Allshouse, Debbie	(3053)	"
Beck, Brenda	(3053)	"
Behm, Roger	(3303)	Fingal
Bigwood, Donald	(3052)	Bismarck
Blanc, Bob	(3053)	"
Blotski, Diane	(3053a)	"
Bosch, Lynette	(3053)	"
Bowman, Bryan	(3053a)	"
Braun, Sandy	(3053)	"
Brumeier, Cindy	(3054)	"
Brunmeir, Eldora	(3053)	"
Brunmeir, Neal	(3054)	"
Buehlek, Fred	(3302)	Fingal
Burthe, Floyd	(3302)	"
Carlson, Candy	(3052)	Bismarck
Carlson, Deborah	(3052)	"
Carpenter, Dwight	(3302)	Fingal
Carpenter, Henry	(3302)	"
Ceimingt, Roger A.	(3053)	Bismarck
Christensen, Peggy	(3053a)	"
Christl, Joseph	(3302)	Fingal
Ciucci, Louis J.	(2360)	Jamestown
Davison, Greg	(3054)	Bismarck

Deichert, Lillian	(3053)	Bismarck
Dockton, William	(3052)	"
Dorkter, Janie	(3053)	"
Derhab, Craig	(3053a)	"
Dimmar, Gregory	(3302)	"
Dimmer, John	(3302)	Fingal
Dornfeld, Eric G.	(718)	Coleharbor
Dreher, Bruce	(2388)	Dickinson
Duebbert, Harold F.	(309)	Jamestown
Dunlap, Dorthea J.	(4225)	Devils Lake
Dvocak, Linda	(3053)	Bismarck
Eberhardt, Robert T.	(1647)	Jamestown
Eggers, James T.	(3302)	Fingal
Eidem, Bjarne	(603)	Dickinson
Elhard, Bonnie	(3052)	Bismarck
Ertelt, Dennis	(3302)	Fingal
Ertelt, Jerome	(3303)	"
Erterl, Gordon M. Jr.	(3303)	"
Ferderer, James	(3054)	Bismarck
Fetter, Linda	(3052)	Manden
Fields, Robert C.	(4243)	Upham
Fox, Chuck	(3053)	Bismarck
Fry, Cathrin	(4247-48)	Clinton
Gaebe, Robert	(4249-50)	New Salem
Gaugler, Bruce A.	(3054)	Bismarck

North Dakota

German, Frederick	(3302)	Fingal
Graves, Tim	(3053a)	Bismarck
Hagen, Lind M.	(4824)	Jamestown
Harbeke, Joseph	(2713)	West Fargo
Harrisman, Raymond A.	(3054)	E. Bismarck
Hartl, Harold	(3303)	Fingal
Hartt, Francis	(3303)	"
Haunson, E. D.	(785)	Dickinson
Helms, David S.	(2986)	Jamestown
Henderson, Val	(3053a)	Bismarck
Herr, Richard A.	(3052)	"
Hildenbrand, Deb	(3052a)	"
Hinrichs, Peter C.	(1665)	Dickinson
Hoffman, Mary K.	(3052)	Mandan
Hoffman, Robert	(3052)	"
Holan, Darrell	(3302)	Fingal
Holm, Dale	(3303)	"
Huber, Ernest	(3302)	"
Johnson, Bartly D.	(3303)	"
Johnson, Douglas H.	(786-7)	Jamestown
Johnson, Frederick W.	(3302)	Fingal
Johnson, George M.	(730)	Fargo
Johnson, Marcia	(3052)	Bismarck
Juarinor, Paul	(3052)	"
Kapaun, Jeff	(3303)	Fingal
Kapman, Maynard	(3302)	"
Kinden, John	(3053a)	Bismarck
Kjonas, Loren	(3052)	"
Knight, Connie	(3053a)	"
Kohler, Kenneth	(3302)	Fingal
Kohler, Kim	(3302)	"
Kohler, John	(3303)	"
Kopaun, Gary	(3302)	"
Koslofsky, Kenneth	(3303)	"
Koslofsky, Ron	(3303)	"
Krieger, Lo A.	(3052)	Bismarck
Kuny, Steven J.	(3052)	"
Kurtz, Ray	(3303)	Fingal
Langman, Paul T.	(3302)	"
Lee, Alice	(2318)	Mandan
Liel, Jerome R.	(3302)	Fingal
Lilly, J.	(3054)	Bismarck
Lindeba, Dave	(3053)	"
Lokemden, John	(607-8)	Jamestown
Lopic, Johnny	(3054)	Manden
Loven, Roger	(3052)	Bismarck
Maasjo, Orvis	(3302)	Fingal
Mabel, Ronnie	(3302)	"
MacDonald, J. H.	(667) (528-30)	Dickinson

North Dakota

Mack, Ed	(2063)	Harvey
Maier, Lynnette	(3053a)	Bismarck
Marone, Bertie	(3053)	"
Martin, James B.	(4420)	Valley City
McClure, Jerry M.	(3054)	Bismarck
Meyer, Jerry	(668-9)	Jamestown
Mischel, Annette	(3052)	North Dakota
Monson, Harry O.	(3302)	Fingal
Morgan, H. R.	(138)	Bismarck
Moser, Windy	(3053)	"
Mozarck, Robert	(3053)	"
Nayes, Larry	(3052)	"
Nelson, Cindi	(3053a)	"
Neuharth, Erwin	(2063)	Hursdfield
Oelke, Cynthia K.	(3053)	Bismarck
Palmer, Richard J.	(3978)	"
Patch, Ron	(3052)	"
Patzman, Rich	(3052)	"
Paul, William	(3052)	North Dakota
Paulson, Neil	(3303)	Fingal
Paulson, Peter	(3303)	"
Perkuchin, Don	(531)	Foxholm
Price, Judith	(3052)	Bismarck
Puhr, Eaton	(3303)	Fingal

Quast, Jennifer	(3053)	Bismarck
Rapaun, Rodney	(3302)	Fingal
Raszler, Jeannette	(3053)	Bismarck
Redding, Albert	(2063)	Cathay
Redmond, Bill	(3052)	N. Dakota
Reeves, Jean E.	(3053)	Bismarck
Reeves, Leo H.	(3053)	"
Rhines, Jennifer	(3053)	"
Rieoinger, B.	(3052)	"
Riedinger, Mary	(3052)	Mandau
Rostad, Irven O.	(852-3)	Carpio
Sage, Howard	(3052)	Bismarck
Sandiuls, Anne	(3053a)	"
Schaeffer, Allen P.	(3054)	"
Schettler, Mary K.	(3053)	"
Schimmelpenny, H. R.	(3052)	"
Schlagel, Frank	(3303)	Fingal
Schulz, Lila	(3053)	Bismarck
Schushart, Charlene	(3052)	N. Dakota
Schwagler, Edgar	(1458)	New Salem
Seidel, Terry	(3053)	Bismarck
Serie, Jerome R.	(4531)	Fargo
Seure, Rocelyn	(3053)	Bismarck
Stefen, Debbie	(3053)	"
Sheffield, Clinton	(462)	Dickinson
Sherwin, Doreen	(3053)	Bismarck

North Dakota

Smith, Glenn	(3052)	Mandon
Steinbrueck, Mary B.	(3052)	N. Dakota
Steinle, Pam	(3053)	Bismarck
Stevenson, Orville	(3054)	"
Stiedl, Albert	(3302)	Fingal
Stradinger, William	(3052)	Bismarck
Studl, Geo	(3302)	Fingal
Testa, Joe	(3053a)	Bismarck
Thorne, Marjorie	(3054)	"
Tjenstrom, Charlene	(3053)	"
Toman, Lee	(3052)	Mandan
Town, Ralph H.	(5701)	Jamestown
Trapp, Robert	(3303)	Fingal
Trout, Alan K.	(679-680)	Upham
Tschosik, Mary	(3053)	Bismarck
VanSwearingen, Janet	(1785)	"
Vedvick, Chas	(3052)	N. Dakota
Waderon, Darell	(3302)	Fingal
Walls, Darold T.	(2333)	Jamestown
Weber, Clem	(3302)	Fingal
Weber, John C.	(3303)	"
Weber, Ronald J.	(3303)	"
Weight, James R.	(4047)	Jamestown
Whitcomb, S.	(3302)	Fingal
White, Trudi	(3053)	
Winbauer, Bob	(3053)	Bismarck
Winkler, Archie	(3302)	Fingal
Wolff, Susan	(3053a)	Bismarck
Yanish, Gary	(3303)	Fingal
Yecoshenko, Betty	(3053)	Bismarck
Zeller, Kathy	(3053)	"
Zwigle, Margo	(3053)	"

Ohio

Bacber, Deborah B.	(1277)	Terrace Park
Bangham, Jerry	(1050)	London
Banker, E. D.	(977)	Morrow
Barloon, Marvin J.	(3692-3710) (4141-4159)	Cleveland
Buturam, Mark	(1592)	Springfield
Becker, Marion R.	(687-688)	Cincinnati
Bergman, Charles	(689)	North Olmsted
Black, Robert L. Jr.	(3349-3351)	Cincinnati
Blackmore, Ron	(542)	Granville
Bogosian, Don	(713)	Cincinnati
Brod, John S.	(269)	Wyoming
Brown, Alexander C.	(656)	Cincinnati
Campbell, John	(813-14)	"
Chatfield, Elizabeth W.	(1074)	"
Conroy, A. J.	(1631)	"
Demers, Lionel	(3382)	Sheffield Lake
De Wall, Richard	(659)	Dayton
Ditmars, Jon E.	(2684-89)	Columbus
Dreyer, William	(1249)	Cincinnati
Duke, John Burns III	(2390)	"
Durrell, Richard H.	(452-3)	"
Ebert, James W.	(2235)	Columbus
Eigel, Richard	(886)	Cincinnati

Eggleston, Patrick M.	(1050)	Columbus
Farrell, William C.	(3391)	Lakewood
Fleishmann, Charles	(1364-5)	Cincinnati
Freiberg, Albert M.	(721)	"
Fremont, Thomas G. R.	(1300-1)	"
Gauthier, Roger	(3398)	Columbus
Gidindl, Michael A.	(211)	Lakewood
Graefe, Henry III	(992-3)	Sandusky
Gronberg, Terry	(695)	Milbord
Hagist, Otto	(1525-6)	Cincinnati
Hall, Roger F.	(4703)	Chagrin Falls
Heath, Charles R.	(2884)	Cincinnati
Heiser, Karl F.	(663)	Glendale
Hoynes, L. E.	(3443)	Lakewood
Huffmeier, Kathy	(1004)	Cincinnati
Huffmeier, Ronald	(1118-9)	"
Hurter, Jerry	(SL 57-64)	"
Jacobs, Stuart	(1535-6)	"
Jividen, Carl & Frances	(1120)	Columbus
Joyce, Catherine	(1290)	Perrysburg
Kundle, R.	(3878-3881)	Oregon
Lamberger, Paul	(1929-1930)	Kettering

Ohio

Lee, Col. J. C. H. Jr.	(DC I 184-199)	Cincinnati
Lemire, Jerome A.	(509)	Columbus
Lisle, Harvey C.	(900)	Norwalk
McGee, M. L.	(4358-4411)	Columbus
McKenzie, Garry D.	(2062)	"
Margerum, George	(3490)	Chagrin Falls
Markham, Geraldine	(1414)	Columbus
Meinking, Karen	(1723-5)	Cincinnati
Minning, Jeannette P.	(1550)	"
Moser, Marshal A. Jr.	(1434)	Columbus
Neighbors, Henry F.	(3962-3963)	Cincinnati
Nickum, Robert S.	(702)	Milford
Oliver, Walter H.	(3520)	Gates Mills
Oney, John	(1154)	Milford
Palma, Ronald B.	(275-7)	Cincinnati
Patterson, James W.	(106-8)	Westerville
Pattison, Aletheia	(2527)	Cincinnati
Park, Hall	(1436-7)	"
Pierce, Henry C.	(3235-3236)	"
Postanzy, Dominie	(253)	Terrace Park
Reed, Ruth	(3563, 5769)	Lakewood
Reinhart, Ralph Sr.	(139)	Peninsula
Richards, Rachel	(1263)	Galloway

Rhoades, Betty V.	(2567)	Cincinnati
Rhoades, Mary Jane	(3568)	"
Rhoades, Susan J.	(1948)	"
Rowe, Stanley M. Jr.	(1753-4)	"
Ryan, William G.	(3571)	Bay Village
Saiver, Robert M.	(283-4)	Loiain
Saunders, I. M.	(2569, 5800)	Wickliffe
Schaefer, Victoria	(3277)	Cincinnati
Schery, Robert W.	(2570)	Marvsville
Schumacher, R. H.	(1227-8)	Milford
Sears, Mike	(5359-5362)	Miamesburg
Seeds, Robert E.	(4008-4010)	Gahanna
Serre, Sherman H.	(3575)	Euclid
Siskind, Alfred A.	(3578)	Willowick
Stein, Edwin Jr.	(2585-6)	Cincinnati
Strinyple, James A.	(266-7)	Greenwich
Threlkeld, Robert D.	(289-91)	Cincinnati
Tubb, Richard A.	(1572)	Columbus
Tucker, Luther	(3297-3298)	Cincinnati
Tybout, Richard A.	(83-84)	Columbus
Voigh, Nancy	(1268-9)	Parma
Windham, Fred W.	(2199)	Bethany
Wise, Vera M.	(485-6)	Uniontown
Wright, H.	(1546)	Cincinnati

Oklahoma

Ables, Lawrence	(5706)	Madill
Ackerman, Dan	(2123)	Burlington
Ackerman, Ray	(2123)	Oklahoma City
Adams, Alvin	(5377)	"
Adams, D. E.	(2614)	Guymon
Allen, John J.	(2614)	Enid
Anderson, Herbert E. Jr.	(1275-6)	Muskogee
Armstrong, Allen	(2122)	Oklahoma City
Arnold, Phillip	(1241-43)	Butler
Asfabl, Milton	(2122)	Oklahoma City
Baber, Edwin J.	(2123)	"
Badger, Roy, Sr.	(976, 1196)	Durant
Baggett, Boyce	(2131)	Oklahoma City
Baggett, Clarence	(2124)	"
Bailey, R. D.	(2124)	Altus
Baker, G.	(2124)	Oklahoma City
Ballard, Warren Jr.	(1588-9)	Tulsa
Banter, Phil R.	(2125)	Oklahoma City
Barker, R. W.	(1890)	Stillwater
Barlow, Ruth E.	(1060)	Bartlesville
Barrett, Robert J.	(2614)	Maryana
Barrett, Wallace	(2125)	Davis
Bartlett, Dewey F.	(3333)	Tulsa
Barton, Calvin L.	(5706)	Park Valley
Barton, Frank	(2615)	Edmond
Bass, Clarence	(2125)	Geary
Benham, David B.	(2126)	Oklahoma City
Benham, John F.	(2126)	"
Benning, Gene H.	(2126)	"
Berenda, Carlton W.	(1494)	Norman
Bernasco, Carl	(2127)	Oklahoma City
Berry, Everett E.	(1601)	Stillwater
Bill, Bob	(2127)	Blackwell
Birmingham, W. C.	(2201)	Altus
Bish, Robert A.	(1349)	Norman
Bliss, John W.	(5707)	Oklahoma City
Bonner, Laurence	(2127)	Kingfisher
Boyles, J. E.	(5706)	Altus
Braddoch, F. G.	(2128)	"
Branham, W. E.	(2128)	Oklahoma City
Brashears, Robert	(5713)	Tupelo
Braun, E. J.	(2297)	Oklahoma City
Breeding, M. O.	(2128)	"
Bridgewater, Rhiva	(4817)	Beaver
Briggs, Robert E.	(4962)	Altus
Brocer, Doug	(2129)	Oklahoma City
Broune, Henry	(2129)	"
Brown, Clyde A.	(5377)	Chandler
Brown, Fred E.	(4817)	Okmulgee
Brown, Fred J.	(2615)	Boise City
Brown, Harley P.	(1495)	Norman
Brown, I. S.	(4182)	Elk City
Brown, Thomas G.	(2615)	Pond Creek

Oklahoma

Browne, John R.	(2129)	Oklahoma City
Bryan, Ruth	(5482)	Frederick
Buck, E. Joe	(2201)	Altus
Buckley, Helen A.	(1616-18)	Oklahoma City
Bueneth, Dick	(2157)	Alva
Burden, Ronald E.	(2616)	Davenport
Burghart, H. H.	(2130)	Oklahoma City
Burk, Jake A.	(2130)	Altus
Burks, Mark	(2130)	Oklahoma City
Bush, Kelly	(2197)	Wilburton
Butler, Paul B.	(2131)	Oklahoma City
Butler, Robert E.	(2131)	Altus
Caffy, J. W.	(2616)	Beaver
Caldwell, Benton	(5378)	Frederick
Calhoon, Grayce	(2617)	Beaver
Cam, Hershel	(2161)	Altus
Campbell, Elmer	(2132)	Crescent
Campbell, J. E.	(2132)	Altus
Cannon, Joe Berry	(2132)	Blackwell
Carl, M. F.	(2673)	Okeene
Carrick, J. A.	(5378)	Hollis
Carter, C. M.	(2617)	Goltry
Carter, J. W. Sr.	(2133)	Ketchum
Carter, Tim	(2620)	Watonga
Caston, R. E. Jr.	(2133)	Oklahoma City
Chalfant, J. C.	(5707)	Cheyenne

Chapman, Dale	(2617)	Altus
Chewe, George Jr.	(2133)	Cordell
Church, Lloyd E.	(505)	Wilburton
Clinesmith, Clay	(2304)	Fairview
Coalson, Paul W.	(2619)	Hobart
Cohen, Cullen	(5482)	Wynnewood
Coldwater, Howard E.	(2618)	Forgan
Colley, Robert J.	(2134)	Oklahoma City
Cook, R. D.	(2618)	Beaver
Cooke, Charles H.	(2618)	Oklahoma City
Coppa, Geton Jr.	(2134)	Hollis
Coppa, Gilmer N.	(2134)	Snyder
Corbett, L. W.	(2135)	Duncan
Corbin, Paul	(5378)	Altus
Corbin, P. H.	(2135)	Anadarko
Cornish, M. C.	(2646)	Pond Creek
Cornwell, George P. Jr.	(5293)	Tulsa
Costner, Elbert L.	(2135)	Heavener
Cotner, A. W.	(2136)	Oklahoma City
Cox, Barbour	(2306)	Chandler
Cox, W. K.	(2136)	Oklahoma City
Craig, Lee C.	(2020)	Stillwater
Craig, Milton C.	(392-3)	Chandler
Crane, Glenn B.	(2627)	Cheyenne
Crawford, Dwight	(2619)	Ames
Crawford, R. W.	(2194)	Norman
Crockett, Bernice	(2136)	Durant

Oklahoma

Cromwell, S. Lee	(2619)	Enid
Crouch, Allen	(2202)	Alva
Crow, E. S.	(2137)	Gould
Crow, Georgia	(2620)	Hollis
Crowe, V. P.	(2153)	Oklahoma City
Crumpler, G. R.	(2137)	Checutah
Cunningham, Viola	(5379)	Snyder
Cunningham, Wayne	(2620)	Moorland
Curfman, J. A.	(2652)	Beaver
Curtis, Aaron	(1636)	Minco
Dage, Don	(2176)	Waiters
Dalton, Andrew T. Jr.	(1901)	Tulsa
Darveau, J. M.	(2138)	Oklahoma City
Davis, Paul	(1637)	Norman
Day, Lester A.	(2621)	Pond Creek
Denny, R. E.	(2621)	Elk City
Deonier, Otis K.	(5379)	Harrah
Dieb, Jack H.	(2621)	Woodward
Dodson, Keith	(5379)	Altus
Don, Albert E.	(2139)	Oklahoma City
Doughty, Harold	(2139)	Altus
Downing, Bob	(2622)	Beaver
Drake, Laurence	(5708)	Gate
Dresser, L. L.	(2140)	Tulsa
Driscoll, Herman	(5708)	Stigler
Drury, Jack	(2139)	Olustee
Duke, Elwando	(5380)	Rush Springs
Dunbar, Charles B.	(2622)	Mooreland
Duncan, Burton	(2140)	Antlers
Dunn, C. Harlan	(394-97)	Owasso
Durhaming, Tom	(2148)	Oklahoma City
Edge, Roland	(5380)	Fort Cobb
Edwards, J. H.	(2622)	Alva
Edwards, Robert J.	(2394-5)	Moyers
Elli, Ralph J.	(1298)	Choctaw
England, Millard	(5380)	Cordell
Engully, Jack	(2174)	Guthrie
Epperly, Leo	(2140)	Del City
Esluidge, Edward	(2141)	Oklahoma City
Fahnesteck, E. A.	(5381)	Okmulgee
Ferris, Robert A.	(1363)	Tulsa
Fits, F.	(2142)	Mangorm
Fleshman, Dean	(2142)	Oklahoma City
Fitzgerald, Ray E.	(2141)	"
Foiles, Larry S.	(5708)	"
Folsom, L. C.	(2623)	Davenport
Forbis, Charles E.	(2623)	"
Fowler, M. D.	(2623)	Canton
Fox, Twilah A.	(3396)	Tulsa
Franks, Joe	(2142)	Enid
Fraun, Dean	(5709)	Alteas

Oklahoma

Frederick, Joe B.	(2624)	Altus
Fritlzer, Dean	(2030-1)	Tulsa
Fruick, William N.	(2143)	Oklahoma City
Fruin, Carlotta M.	(2195)	Coyle
Fryer, Peter J.	(2143)	Oklahoma City
Furron, John	(2144)	"
Gantz, Hallie G.	(2624)	Enid
Gardner, I. H.	(2144)	Oklahoma City
Garrett, Paul	(1826-7)	Tulsa
Geis, Earl	(2144)	Alvant
Gentry, J. Byron	(2625)	Hobart
George, F.	(2625)	Waynoka
George, Preston	(2145)	Edmond
Geren, Bass	(2145)	Durant
Gibson, H. W. Jr.	(2145)	Muskogee
Gillenwater, H. N.	(2625)	Boise City
Glenn, Arthur D.	(2146)	Oklahoma City
Glutcher, Howard	(2625)	Chandler
Goff, Richard Allen	(1911-12)	Norman
Goodwin, Arthur	(5381)	Altus
Goodwin, D. J.	(2626)	Kingfisher
Gordon, Clifton	(2626)	Altus
Gordon, Tom R.	(2627)	Oklahoma City
Goss, John C.	(2308)	"
Gover, John	(2146)	Altus
Graham, Ruth O.	(5381)	Boise City
Halstead, Bill G.	(1659-60)	Enid

Gramling, T. L.	(2147)	Altus
Green, Ira	(2147)	Marlow
Green, Leland	(2627)	Cherokee
Greene, G. R.	(2628)	Beaver
Grider, John	(2147)	Granite
Grushink, Jack	(2148)	Duncan
Gwenn, L. H.	(2146)	Oklahoma City
Hagenhand, M. A.	(2148)	Tahlequah
Hahn, J.	(2149)	Granite
Haigler, Robert	(2628)	Canton
Halley, John H. Jr.	(2149)	Oklahoma City
Hallis, R. L.	(2149)	Okmulgee
Hamlin, Ray	(2150)	Blackwell
Hancock, C.	(2628)	Waurika
Hardwick, Merle	(2629)	Lamont
Harms, Menno	(2629)	Cherokee
Harper, Bob	(5709)	Frederick
Harris, Alan	(2629)	Norman
Harris, Glenn E.	(2150)	Oklahoma City
Hatten, G.	(2191)	Clinton
Hausor, H. E.	(2150)	Oklahoma City
Hawkins, Lyle	(2310)	Cherokee
Haxel, Ernest L.	(5382)	Tipton
Haynie, Nancy	(5382)	Tipton
Hear, G. R.	(2151)	Guymon
Hedges, Kenneth	(2630)	Lamont

Oklahoma

Henderson, Carrol L.	(4265)	Altus
Hendrick, Robert	(2631)	Erick
Hendrickson, D. Wayne	(2630)	Hooker
Hepner, R. L.	(2631)	Laverne
Hicks, J.	(2631)	Altus
Hight, Buster	(2158)	Atoko
Hill, Alvo J.	(2151)	Altus
Hill, George B.	(2151)	Coalgate
Hitch, H. C. Jr.	(2159)	Guymon
Hodges, Albert	(2632)	Forgan
Holbrook, Lester W.	(2152)	Oklahoma City
Hole, Bill	(1916)	Minco
Hole, H. E.	(2035)	Minco
Holman, Luther C.	(2152)	Midwest City
Hopp, David D.	(1310)	Norman
Horton, Gary	(1311-12)	Broken Bow
Horton, William	(5709)	Hollis
Howard, Sam	(2632)	Hendrix
Huckabay, Gary	(2153)	Mustang
Hudlin, Grove	(2153)	Hulbert
Ice, Donald	(2154)	Geary
Irester, W. J.	(2154)	Altus
Jack, Helen F.	(2632)	Oklahoma City
Jackson, Jack G.	(2154)	Sligler
Jacobs, Frank	(1005)	Oklahoma City

Janeway, Rodney F.	(2141)	Oklahoma City
Johnson, Chas E.	(2155)	Edmond
Johnson, Gillis	(2155)	Oklahoma City
Johnson, Kenter	(2156)	Alva
Johnson, Norrille	(2155)	"
Johnson, Thomas O.	(2633)	"
Jondine, Claude	(2633)	Chandler
Jones, C. Hewel	(2156)	Oklahoma City
Jones, Jim	(1315)	Broken Bow
Jones, R. H.	(2156)	Woodword
Justice, Robert E.	(2045)	Tulsa
Kayser, Marshall	(4314-15)	Cushing
Keating, H. L.	(312)	Tulsa
Keck, Raymond	(1682)	Enid
Keith, Guy N.	(2160)	Oklahoma City
Keith, Howard B.	(2633)	Shattuck
Keller, A. G.	(2157)	Oklahoma City
Kelley, Robert	(2157)	Grainola
Keltren, Russell V.	(2634)	Alva
Kenner, Herbert	(2158)	Turpin
Kenton, Pauline	(1838)	Bartlesville
Kern, Elgin	(3450)	Clinton
Kile, Clyde	(2634)	Beaver
Kimlurling, C. J.	(2159)	Oklahoma City
King, Don Arch	(2159)	Guymon
Kirby, C. L.	(5382)	Hollis

Oklahoma

Kirkpatrick, George	(5383)	Sparks
Kirkpatrick, Glade R.	(1129-32)	Tulsa
Klaffke, Kenneth	(2160)	Oklahoma City
Klinger, Lyle	(2634)	Laverne
Knight, R. B.	(5383)	Holdenville
Knotts, Max L.	(2160)	Oklahoma City
Krieger, Joe	(2048)	Tulsa
Lacy, E. B.	(2161)	Laueton
Ladd, Harley	(369-70)	Tulsa
Lambdin, Don	(2252)	Lawton
Landers, W. A.	(2162)	Oklahoma City
Lane, Haskel D.	(2162)	Altus
Lang, C. J.	(2162)	Oklahoma City
Langdon, Ava	(2163)	Mangum
Lauden, Garvice M.	(2050-51)	Tulsa
Ledbetter, E. R. Jr.	(2163)	Oklahoma City
Lee, Billy McIver	(2163)	Mooreland
Lee, John M.	(5713)	Atoka
Lee, L. O.	(2652)	Pond Creek
Levermain, Ed	(5383)	Edmond
Lewis, B. L.	(2164)	Wetumka
Lewis, James	(407)	Stillwater
Lindstrom, Jack L. I.	(2164)	Lawton
Loeffler, Louis Jr.	(1216-17)	Oklahoma City
Loomis, Court E. Jr.	(2164)	Enid
Lorenz, Philip B.	(3488)	Bartlesville

Loula, Jerry	(2165)	Anadarko
Lovett, James D.	(2165)	Mangum
Lumford, D.	(2165)	Henryetta
Mackey, Elmer	(2635)	Boise City
Malcom, Larry	(1699)	Chickasha
Males, L. L.	(2169)	Cheyenne
Martin, A. C.	(2170)	Oklahoma City
Martin, John B.	(2170)	"
Martin, R. T.	(2068)	Tulsa
Mason, Adran	(5385)	Fort Cobb
Matuszak, Francesca	(4773)	Bartlesville
McAskell, Robert	(2166)	Altus
McBride, Joe Jr.	(2166)	Anadarko
McCharen, John T. III	(2166)	Oklahoma City
McCoy, Robert L.	(2167)	"
McDonald, Audrey	(1254)	El Reno
McDowell, J. F.	(5483)	Hollis
McGregor, James	(2167)	Midwest City
Marvin, McKee	(2167)	Guymon
McKelney, B.	(2168)	Oklahoma City
McKinnin, Care	(2168)	Guymon
McLain, M.	(2168)	Oklahoma City
McLoughlin, Christopher	(2727-28)	Norman
McMahan, Hatton	(2169)	Altus
McNeil, Ramonda	(5384)	Del City
McNeil, Wilmoth	(2635)	Hollis

Oklahoma

Meacham, Holland	(2635)	Elk City
Meddox, J. M.	(2169)	Tipton
Meibergen, Lew	(2636)	Enid
Meier, Alvey J.	(4818)	Beaver
Michael, T. H.	(2636)	Hollis
Mienzer, V. J.	(2171)	Tulsa
Miles, J. B.	(2171)	Anadarko
Miller, Howard W.	(5385)	Wokita
Miller, Maynard	(2071)	Ada
Mizell, Michael E.	(3506-3507)	Midwest City
Monroe, Joe B.	(2172)	Cherokee
Moore, Charles R.	(2173)	Oklahoma City
Moore, Robert W.	(2173)	"
Morris, Stone M.	(2173)	El Reno
Morris, Victor	(2637)	Mooreland
Motley, Arlis	(5385)	Hollis
Motley, Garland	(5386)	Hollis
Muegge, Paul	(2637)	Lamont
Muir, Lillian	(2636)	Ames
Munell, Ray C.	(2202)	Altus
Murton, C. H.	(2174)	Oklahoma City
Nark, Curtis	(2175)	Collinsville
Nash, Robert	(2175)	Millers
Needham, William	(2637)	Alva
Norris, Howard H.	(2175)	Oklahoma City

Northcourt, Leonard	(2638)	Enid
Norton, William A.	(2638)	Chandler
Nourse, William	(2176)	Oklahoma
Odamn, M. D.	(2652)	Shattuck
Outhier, R. E.	(2639)	Woodward
Palin, Kenneth	(2639)	Shattuck
Patterson, Dewey	(2639)	Chandler
Pemberton, Art L.	(2176)	Oklahoma City
Pennes, Jack	(5770)	Mill Creek
Perry, John W.	(1019)	Norman
Perrymen, Ward	(2177)	Altus
Petchlyher, Ernest L.	(2177)	Midwest City
Peters, Cecil	(2177)	Hugo
Petitt, S. M. Jr.	(2640)	Oklahoma City
Petty, Marvin	(2179)	Edmond
Phelps, Joe	(2178)	Oklahoma City
Phillips, Guy	(5712)	Apache
Phillips, H.	(5710)	Seminole
Pickard, L. C.	(5388)	Meeker
Pierce, L. E.	(5386)	Cheyenne
Pierce, Polu G.	(2178)	Bethany
Pillers, Elmer E.	(2178)	Oklahoma City
Pittman, Jim	(2179)	Seiling
Pittman, W. H.	(2179)	Seiling

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Oklahoma

Plowman, Paul E.	(2180)	Oklahoma City
Polk, Frank L.	(2180)	Oklahoma City
Pool, Ray	(2180)	Tulsa
Porter, William T.	(2181)	Oklahoma City
Ports, Mark	(1159)	Oklahoma City
Price, D. B.	(2640)	Woodward
Puls, C. R.	(2079)	Tulsa
Pummill, Loyd	(2181)	Oklahoma City
Pursley, G. A.	(5386)	Rush Spring
Putnam, Frederick	(9507)	Oklahoma City
Raab, Frank	(2184)	Canton
Rains, Earl	(5387)	Ft. Cobb
Ralston, Nolan	(2642)	Waynoka
Raney, C. W.	(2182)	Oklahoma City
Rasor, Paul	(2640)	Ames
Ray, William C.	(2641)	Altus
Rector, Ralph	(2641)	Beaver
Redize, James	(2641)	Seiling
Reid, Gary	(2182)	Hollis
Reid, John A.	(2182)	Oklahoma City
Rein, Robert G.	(1746)	Norman
Richardson, Howard	(5387)	Snyder
Richardson, Oda L.	(2183)	Dougherty
Ries, Amelia C.	(3270-3271)	Norman
Rivers, J. B.	(2183)	Oklahoma City

Roddy, Earl	(2183)	Carnegie
Rodolph, Clyde Jr.	(2184)	Norman
Roepke, Howard	(2642)	Alva
Rofuto, Roger	(2642)	Mooreland
Rogers, R. L.	(3997)	Tulsa
Romero, F. S.	(851)	Tulsa
Rood, Fenton	(6745)	Norman
Rorick, Joseph F.	(2184)	Norman
Rothschopf	(2643)	Guymon
Rudkin, Bob	(2643)	Edmond
Rupp, R. A.	(5387)	Ft. Cobb
Russell, Clyde	(2185)	Altus
Russell, Howard	(2185)	Oklahoma City
Sampier, Howard	(2643)	Elk City
Sarved, B. S.	(5388)	Okmulgee
Saunders, Grady	(2186)	Oklahoma City
Saunders, O. B.	(2188)	Altus
Scheuczer, Hermon	(2644)	Turpin
Schmitz, A. J.	(2645)	Manchester
Schoenthaler, Robert	(1762)	Oklahoma City
Schrader, F. G.	(2644)	Weatherford
Schwartz, W. L.	(2645)	Kingfisher
Scoggins, Harold R.	(2186)	Muskogee
Scott, Jack L.	(2187)	Oklahoma City
Scott, Wanda	(2085)	Tulsa

Oklahoma

Seater, Keith L.	(2645)	Pondcreek
Seewright, James	(2327)	Oklahoma City
Sellard, Lou	(5377)	Drumright
Sewell, A. B.	(2646)	Cordell
Shockelford, Harry	(2647)	Laverne
Sieg, J. G.	(1229)	Tulsa
Sillum, L. R.	(2187)	Erick
Simmerman, Paul	(5388)	Seiling
Simmons, Fred	(5389)	Walters
Simpson, E. W.	(2647)	Hobart
Simpson, Ezra	(2647)	Elmwood
Slepka, Bill	(5710)	Okemah
Smith, Charles	(2201)	Oklahoma City
Smith, Delbert G.	(1878)	Oklahoma City
Smith, Gene R.	(2189)	Alva
Smith, Harold J.	(4014-4015)	Ft. Gibson
Smith, Harold M.	(1442)	Bartlesville
Smith, J. Cullin	(1441)	Ardmore
Smith, Joel K.	(4016)	Bartlesville
Smith, Robert N.	(2188)	Oklahoma City
Smith, Terrill D.	(4540-4541)	Edmond
Smith, W. E.	(2187)	Oklahoma City
Speck, John K.	(2189)	Oklahoma City
Sprague, Eva	(5711)	Ft. Cobb
Springer, C. G.	(2189)	Oklahoma City
Stamper, Joe	(2190)	Antlers
Standingwater, Robert	(2648)	Foss

Steelman, W. E.	(2191)	Oklahoma City
Steen, Fred W.	(2190)	Blair
Steinle	(2190)	Hooker
Stephens, George K.	(1292)	Ada
Stillman, Nadine	(3585)	Tolson
Strasbough, Paul B.	(2191)	Oklahoma City
Stroubal, Richard A.	(2192)	Midwest City
Sturdy, Jerry C.	(2787-88)	Sallisaw
Sullivan, Glenn	(2122)	Oklahoma City
Summerfelt, Robert	(1474)	Stillwater
Swan, Richard E.	(2192)	Oklahoma City
Talley, Elton L.	(2192)	Altus
Tankersley, Dan A.	(2193)	Oklahoma City
Tarvin, Therese T.	(5389)	Okemah
Taylor, Constance	(1780-81)	Durant
Taylor, Garland	(5389)	Fairview
Taylor, John	(1781)	Durant
Templin, Lowell	(2193)	Oklahoma City
Terry, James	(2105)	Tulsa
Terry, Jim	(3591)	Tulsa
Thomas, Gerald W.	(2649)	Shattuck
Thompson, James F.	(2194)	Alva
Thompson, Paul E.	(5711)	Sulphur
Thompson, Richard J.	(2194)	Oklahoma City
Tolliver, Margaret A.	(2330)	Oklahoma City
Tombeckin, Leon	(2649)	Hammon

Oklahoma

Tominard, Herschel	(2161)	Shawnee
Toon, Emma	(5390)	Erick
Trent, Ray	(5390)	Del City
Tyler, Jack D.	(2331-32)	Lawton
Van Horn, Laurence	(2195)	Oklahoma City
Vaughan, Milton	(2650)	Blair
Vice, Effie	(5711)	Carnegie
Wade, Frank	(1781)	Durant
Wade, Gene	(2196)	Oklahoma City
Waldrop, J. B.	(2646)	Oklahoma City
Waldrop, Frank	(2650)	Beaver
Walkabout, Clouis	(2110)	Tulsa
Walker, R. C.	(1191)	Tulsa
Walters, Arthur L.	(2321)	Henessey
Walters, W. A.	(1578)	Tulsa
West, C. R.	(1790)	Choctaw
Wharton, Bob	(2197)	Oklahoma City
Wharton, Patty	(2650)	Alva
White, J. W.	(2651)	Boise
Whitlaw, Gareld	(2197)	Oklahoma City
Whitmore, S.	(2198)	Altus
Wilkinson, George	(2651)	Weatherford
Williams, A. E.	(2198)	Perry
Williams, E. S.	(5482)	Rush Springs
Williams, Ira	(2199)	Oklahoma City
Wilmore, Malcolm H.	(5390)	Mt. View
Wilson, James M.	(5712)	Isabel
Wilson, Paul R.	(2199)	Oklahoma City
Winter, Frank J.	(2200)	Oklahoma City
Worthington, Monty G.	(2651)	Frederick
Wright, M. P.	(2200)	Amorita
Wright, M. P.	(2323)	Amorita
Young, W. D.	(2200)	Durant

Oregon

Anderson, Walter L. & Rebecca M.	(215)	Burns
Arpin, E. W.	(355)	Eugene
Ballard John B.	(2341)	Talent
Bauibridge, Lucille D.	(1804)	Cowallis
Beall, Marsh F.	(1347)	Portland
Carter, W. D.	(157)	Lakeview
Chambers, Rich	(596)	Salem
Davis, Jean	(1499)	Medford
Feltus, Clifford	(1362)	Eugene
Fox, Gerald W.	(3749-3750)	Yachats
Frank, Peter W.	(1512)	Eugene
Jolley, R. L.	(1387)	Portland
Lancez, Lee	(1928)	"
Lundberg, Robert G.	(3060)	"
Mellem, Roger	(1420-1)	
Mermillion, Rose J.	(1850)	Milwaukee
Moore, Becky J.	(1854)	"
Moore, Calleen J.	(1855-6)	"
Moore, Rodney O.	(1716-17)	"
Orum, R. Marriner	(1435)	Medford

Oregon

Poirier, Samuel S.	(1157-8)	Medford
Robinson, Robert W.	(2081)	West Linn
Shamon, Michael	(1459)	Bend
Smith, Gerald B.	(514)	Salem
Squier, Anne W.	(4543-4544)	Portland
Sykes, Earl	(1779)	Reedsport
Turcke, D. A.	(1573, 5242)	Medford
Walicki, Joe	(463)	Eugene
Walling, Frank G.	(3605-3608)	Florence
Yusha, Alex	(1344)	Shedd
Zimmermann, T. C. Price	(3308)	Portland

Pennsylvania

Anderson, John	(594-5)	Montrose
Apfelbaum, J.	(1239-40)	Wyncote
Bagley, Edward R.	(2813)	Malvern
Bodler, J. R.	(2663-64)	Galeton
Brown, Roger C.	(2950)	Philadelphia

Pennsylvania

Craig, Joseph H.	(692-3)	Beaver
de Trey, Robert J.	(3595-3596)	Hellam
Gongaware, Lynn	(828)	Irwin
Goodyear, Frank H.	(401)	Bryn Mawr
Hagan, Amedee J.	(781)	Uniontown
Hagan, I. N.	(782-3)	Chalk Hill
Hays, Samuel P.	(696-7)	Pittsburgh
Knittel, Wolfgang	(1008-9)	Delaware Water Gap
Lane, Laura	(1842)	Philadelphia
Leonard, Edith L.	(3486)	"
Miles, Allen B.	(2500)	Flourtown
Morgantini, Gary	(3128-3133)	Forty Fort
Neuman, Evelyn G.	(701)	Philadelphia
Nicol, George	(2265)	"
Pfahler, Robert G.	(1864)	Paoli
Price, Jack	(1262)	Pittsburgh
Rogers, Stuart W.	(1021-2)	Slippery Rock

Pennsylvania

Ropp, Paul D.	(2771-74)	Titusville
Ross, Wilson S.	(321-3)	Sewickley
Schneider, David	(1564)	Pittsburgh
Shogren, Paul W. Jr.	(754)	Lock Haven
Sinclair, I. B.	(478-9)	Media
Stainton, Edward	(619)	Philadelphia
Steel, Philip N.	(1776)	Melrose Park
Strazders, Brian	(960-1)	W. Wyoming
Stroke, James	(1035-7)	Nexen
Trux, William J.	(2284-85)	Bangor
Wagner, Roy J., Jr.	(418)	York

South Carolina

Mason, Robert E.	(88)	Sumter
Metcalf, L. S. H.	(181)	Charleston
Parker, Francis L. II	(413)	"

South Dakota

Anderson, Maurice E.	(190)	Pierre

South Dakota

Edie, Esther R.	(2023)	Brookings
Elrod, Joseph H.	(1299)	Pierre
Erickson, Ronald E.	(3680-3681)	Brookings
Fedeler, Robert A.	(2397)	"
Hamm, David C.	(2998)	Volga
Linder, Raymond L.	(4766)	Brookings
Mc Crow, V. Pat	(3061-3062)	"
Moe, Melvin S,	(3951)	"
Moore, Richard B.	(1223)	Madison
Morrill, Keith D.	(237)	Brookings
Nagelhout, Gary L.	(195-6)	"
Nickum, John G.	(2514-15)	"
Olson, Barbara	(316)	Huron
Progulske, Donald R.	(2532)	Brookings
Schmidt, John L.	(285)	"
Schmulbach, James C.	(1562-3)	Vermillion
Wielp, J. E.	(4622)	Brookings

Tennessee

Adair, Frank H.	(1581-2)	Memphis
Case, Ralph T.	(637, 6373)	Maryville
Cole, Kathryn L.	(2667-69)	Memphis
Cole, W. C.	(4667)	Kingston
Collier, Marjorie	(1629-30)	Tullahoma
Davis, Beulah	(1902)	Nashville
Davis, Robert G.	(3663)	Loudon
Eller, Randy	(1202-3)	Knoxville
Elmore, Jim	(1819)	Chatt
Foster, L. Bruce	(1204)	Knoxville
Gallivan, Donna D.	(1514-5)	"
Garrett, John W.	(3760-3761)	Estill
Gentry, Glenn	(4691-4693)	Donelson
Hale, James W.	(3406-3408)	Manchester
Harrison, Mark	(1102)	Loudon
Hendricks, Robert	(725)	Kingsport
Johnson, Kirk	(4312-4313)	Tyner
Jones, Frank A., Jr.	(3876-3877)	Memphis
Kerr, L. E.	(2046)	Loudon

Tennessee		
Kronback, George	(3055)	Knoxville
Lindsey, Gwenn S.	(2258-60)	Knoxville
McBridge, Don	(5384)	"
Mc Pherson, Jack H. Jr.	(5452)	Kingston
Metz, Hugh J.	(263)	Knoxville
Montgomery, Felix	(1432-3)	Lookout Mountain
Morgan, A. Grady	(3127)	Knoxville
Norwood, Larry	(2516)	Athens
O'Brien, John K.	(2518-19)	Eastern Tennessee
Peelle, Robert	(2268)	Oak Ridge
Santi, David M.	(1760-61)	Jefferson City
Sites, Jack, Jr.	(1463-64)	Clarksville
Smoot, John N.	(2276-77)	Johnson City
Valle, Robert D.	(7297)	Athens
Venable, Sam, Jr.	(1482)	Concord
Voigt, Neil	(77)	Chattonooga

Tennessee		
Wagner, Donald A.	(1190)	Tullahoma
Wilkins, L. Price	(1984)	Knoxville
Texas		
Adams, Marjorie	(420)	Dripping Springs
Akers, J. W.	(1056)	Pearland
Baker, Wayne R.	(3690)	Goodrich
Bartos, Jerry	(5285)	Dallas
Baxter, Charles K.	(1594-6)	Fort Worth
Bowers, Elliot	(DC II) (219-28)	Huntsville
Boyd, D. L.	(2665)	Kemp
Boyt, Cecil K,	(2946)	Devers
Boyt, Patrick E.	(3356)	Devers
Branden, John Jr.	(2209)	Cuero
Bradford, John F.	(982)	Dallas
Brown, Lillian M.	(2357)	Waco
Bryer, Lenard	(2006-7)	Austin
Burd, Jack J.	(3361-3364)	Dallas
Bush, Jim	(986-87)	Frost
Butler, Joe E.	(2951)	Corsicana
Calihan, Dan L.	(2670-71)	Trinity
Campbell, James H.	(2672)	Hurst
Carothers, Tom H.	(2299)	Palestine

Texas

Carpenter, A. D.	(1072)	Austin
Carroll, Ronald L.	(4186-4188)	Plano
Clark, Warren G.	(2677)	Anahuac
Clyde, Robert	(2828)	Dallas
Connor, Gary W.	(1295-6)	Nacogdoches
Coomer, Grant	(2010-11)	Denton
Corley, Hunt	(3641)	Livingston
Curtis, Edwin S.	(2012-13)	Dallas
Davis, J. G.	(2374)	Huntsville
Davis, Nat J., Jr.	(SL) 49-50)	"
Dawson, W. D.	(2377)	Texarkana
Dean, Joe Ned	(3381)	Groveton
Douglas, Susan	(69)	Baytown
Duff, Oscar R.	(2973)	Palestine
Elliott, Charles H.	(2975-76)	Trinity
Emanuel, Victor L.	(719)	Houston
Eubank, Gordon R.	(1823-24)	Hillsboro
Flake, Burton R.	(496)	Houston
Framson, Robert S.	(498)	"
Fry, Dan C.	(3755)	Liberty
Gadbaw, Eugene	(3757)	Texarkana
Garner, Freeman H.	(2425)	Palestine
Giuliano, Vincent	(3402)	Irving
Gresham, Gilbert Jr.	(2706)	Centerville
Ham, Mark	(2439)	Palestine
Hannawacker, Eric M.	(4257-58)	Grand Prairie
Hardwick, Dave	(1661)	Richardson
Harris, Dwain	(2036)	Corpus Christi
Helsley, Phyllis J.	(3869)	Richardson
Holbart, George S.	(2711-12)	Arlington
Howe, Marvin E.	(1003)	Orange
Hullmon, Billy W.	(3770-72)	Dallas
Jackson, Guy C. III	(4300-01) (5518-19)	Anahuac
Jinks, Johnny	(5639)	Grand Prairie
Johnson, W. R.	(1923)	Houston
Johnston, J. E.	(2455)	Palestine
Johnston, Roy C.	(2723)	Richardson
Jones, Stephen R.	(899)	Dallas
Jordan, Robert E.	(3044)	Palestine
Kenderdine, R. L., Jr.	(2728)	"
Kennon, Chris	(733-36)	Fort Worth
Key, Bill	(2730)	Trinidad
Key, Jno W.	(2731)	Trinidad

Texas

Keyes, Nan	(572)	Fort Worth
Kobar, Alex P.	(2736)	Palestine
Kupper, A. J.	(2740)	Kaufman
Lagow, Joe L.	(5324)	Anahuac
Larson, Lorin Glen	(664-5)	Dallas
Lindsey, Reed	(3890)	Huntsville
Lively, B. B.	(740-42)	Dallas
Long, Joseph K.	(699)	"
Love, Dean R.	(1052)	Houston
Madewell, J. D.	(2495)	Palestine
Manning, William C.	(4346)	Mabank
Martin, Lubie	(3928)	Shepherd
Martin, Virgil O. & Novella	(313)	Tyler
Maxwell, Hal W.	(2750)	Dallas
McDonald, John B.	(2746)	Palestine
McDonald, T. S.	(1935)	Dallas
McKae, Karen	(80)	Mesquite
Mercer, Ronald E.	(1422)	Big Spring
Meridith, Fred V.	(2496-99)	Terrell
Miller, William C.	(2891-92)	Dallas
Minatra, Sandra	(1256)	Nacogdoches
Minnis, C. W.	(2502)	Ft. Worth
Montgomery, Roger	(304)	Nacogdoches
Moore, Edith L.	(670-672)	Houston
Murray, A. C.	(2509-10)	Palestine
Musgrove, J. G.	(2075-77)	Houston
Myres, Sandra L.	(1718)	Arlington
Nelson, Joe M.	(2760)	Terrell
Nelson, Oscar R. Jr.	(196-199)	Anahuac
Nesty, Gregory B.	(94)	Wichita Falls
Nordhem, A. D.	(1727-29)	Fort Worth
Pace, Percy	(2900)	Huntsville
Paschal, Don	(2762)	Kerens
Patterson, C. O.	(3232-33)	Austin
Payne, Ima B.	(846)	"
Plucker, Frank E.	(847)	Commerce
Potter, Frank	(1945-47)	Dallas
Purinton, Darah	(705)	Richardson
Ragsdale, John G.	(3561)	Houston
Reban, Milan J.	(4509)	Denton
Rector, Howard	(1446-47)	Ft. Worth
Richmond, Albert M.	(2270-71)	Dallas
Riegg, Duane C.	(1329-30)	Austin
Ruff, Hudson	(1166)	Denton
Schneider, William A.	(1333-34)	Dallas
Seyffert, Kenneth D.	(1766)	Amarillo
Shockley, Dave	(3283)	Ft. Worth
Showers, James A.	(2091-2)	Hillsboro
Slater, M. L.	(755-6)	Ft. Worth
Smith, I. G.	(3580)	Houston

Texas

Springer, D. W.	(2782)	Blooming Grove
Stockard, James A.	(3288)	Dallas
Stroder, Mark A.	(1179-80)	Frost
Stroube, W. C.	(2587)	Coriscana
Tandy, Charles D.	(1880)	Ft. Worth
Taylor, Will	(2280-81)	Houston
Terrell, Bill	(2791-92)	Huntsville
Titus, Donald L.	(1783)	Dallas
Urban, Charles	(2796)	Boerne
Van Nest, Kack K.	(2593)	Garland
Wahlquist, Jack R.	(3602)	Dallas
Walden, Ronald W.	(4042)	Grand Prairie
Wallace, Charles R.	(436-37)	Edinburg
Waller, J. J. Jr.	(2800)	Houston
Walters, Peyton	(285-291)	Livingston
Warren, James F.	(2334)	Huntsville
Wathen, Wayne J.	(2600-01)	Ft. Worth
Weitenhagen, Ronald A.	(685)	Houston
Westbrock, Al T.	(4620)	Irving
White, James F.	(3613)	Dallas
Wier, John P.	(1789)	Ft. Worth
Wilbanks, Thomas G.	(244)	Mesquite
Wilkinson, H. A.	(2910)	Fulton

Texas

Williams, K. J.	(2605)	Palestine
Worsham, Joe G.	(591)	Dallas

Utah

Cahill, Thomas E.	(166-176)	Salt Lake City
Cameron, Kean	(5286)	"
Davis, Alten B.	(3655-662) (5547-554,5804)	Ogden
Herbert, J. M	(194)	"
Keetch, Max R.	(1683-684)	Kaysville
Keyser, Joseph N.	(1126)	Moab
Organick, Elliott I.	(2899)	Salt Lake City
Thompson, Robert H.	(214)	"

Vermont

Indridason, Ottar	(2042)	Huntington

Virginia

Agnew, Marion	(204-12)	McLean
Bell, Enoch F.	(440)	Blacksburg
Cannon, Sandra D.	(691)	Falls Church
Farror, G. B.	(271)	Arlington
Fortune, Aggie	(87)	"
Fosberg, F. R.	(398)	Falls Church
Gilliam, William	(DC III 228-233)	Great Falls
Graf, Randolph L.	(994-95)	Blacksburg
Hamni, Charles	(888-89)	Lexington
Howard, Milford C.	(468-75)	Bridgewater
Johnson, Collister Jr.	(728-9)	Charlottesville
Kirby, Robert H.	(5763-64)	Richmond
Mason, Frank E.	(610)	Leesburg
McKean, Roland N.	(3912)	Charlottesville
Pettit, Marie B.	(673)	Harrisonburg
Murray, James B.	(3134-37)	Earlysville
Reed, William T. III	(952-3)	Manakin-Scott

Virginia

Reuland, James M.	(5347-52)	Arlington
Sprague, Elizabeth F.	(286)	Sweet Briar
Walper, P.	(681)	Springfield
Wolcott, Alan E.	(1485-6)	Falls Church
Willson, Gilpin Jr.	(4055-6)	Staunton

Washington

Arp, Arthur H.	(3321)	Vancouver
Bourg, A.	(1609)	Pullman
Brimhall, John L.	(465)	Richland
Bryer, William B.	(811-2)	Bellevue
Clemont, Tom	(2225-6)	Seattle
Coburn, Patricia	(3374)	"
Daley, Wayne J.	(2372)	Everett
Dickinson, Patty	(1201)	Spokane
Fransen, Steven M.	(5567)	Seattle
Gibbs, Judith M. & Alan G.	(3762-3)	Richland
Gross, Lyndon W.	(5584)	Mercer Isl.

Washington

Hallett, Mary S.	(2309)	Seattle
Heckman, James C.	(2311)	Mercer Isl.
Holbrook, Dawn	(5637)	Seattle
Hubbard, S. Thatcher Sr.	(5420)	Spokane
Jennings, Hugh	(2721)	Bellevue
Kershaw, Kathryn	(836)	Goose Prairie
Kiver, Eugene P.	(212)	Cheney
Lagergren, Betty	(1405)	Yakima
Larson, Richard	(788-9)	Spokane
Leighton, Robert S.	(1212)	Seattle
Leinl, Max E.	(3487)	"
Lynn, Isabelle	(836)	Goose Prairie
McMahon, W. A.	(5714)	Seattle
Meyers, Jane A.	(1423)	Pullman
Moore, Elizabeth	(3126)	Richland
Murphy, Eugene	(314-5)	"
Ogilvie, Ellis H.	(792)	Seattle
Ott, Jonathan	(317)	Kennewick
Parzybok, Jennifer L.	(2524-26)	Spokane

Washington

Raymond, Steve	(2538)	Seattle
Rosema, David M.	(5694)	Bellevue
Rundall, W. J.	(2273)	Seattle
Schmidt, Cecil E.	(5354)	"
Schoth, Warren E.	(5695)	"
Slagie, O. D.	(2576-78)	Richland
Stanley, Patricia M.	(3287)	Seattle
Stude, Carl T.	(4551-54)	Spokane
Sutey, Anthony M.	(4023-24)	Richland
Svart, Larry M.	(2789-90)	Seattle
Taylor, Mary F.	(1337-8)	Spokane
Walkinshaw, Walter	(5702)	Seattle
Willing, Martha K.	(5376-91)	"
Witting, Marks K.	(5376)	"
Wyman, Pete	(592-3)	Spokane
Zobel, Ron	(766-7)	Concrete

West Virginia

Meeker, John	(4353)	So. Chas.

Wisconsin

Avellone, Richard	(3936)	Elm Grove
Barnen, James E.	(3933)	Green Bay
Barrot, JoAnne	(3548)	Shorewood
Blakely, E. J.	(3538)	Madison
Breun, Jane K.	(105)	McFarland
Bromley, Daniel W.	(3-68) (4653-4660)	Madison
Burrows, Thomas W.	(881-882)	"
Carrier, Robert J.	(192)	Greendale
Cornils, Vernon J.	(3537)	Manitowoc
Cserep, Duane L.	(3378-80)	Monsna
Dobran, JoAnne M.	(4671)	Green Bay
Duda, D. J.	(3933)	Kenosha
Eager, Leonard P. Jr.	(2021-22)	Evansville
Fulai, A.	(3555)	Milwaukee
Gillette, Laurence N.	(694)	Pell Lake
Havenman, Robert H.	(3410-3437)	Madison
Kindschi, Donald	(2047)	Prairie du Sac
Kunbe, Mark	(3936)	Kenosha
Lord, William B.	(3896-3906)	Madison
Monecow, Steven	(3510-11)	Green Bay
Pagenkopf, V. E.	(1156)	Merrill
Pyrek, Tom	(848)	Milwaukee
Schmidt, Betty	(3938)	Brookfield
Seymour, W. L.	(676)	Elkhorn
Shinault, Linnea	(3936)	LaCrosse
Sodomka, Kappy	(3944)	Racine
Thuriot, Craig	(3944)	"
Tirk, Richard E.	(1234)	Elton
Warner, Maurice	(2111-18)	Madison
Weimer, Mary A.	(1579)	Madison
Wilson, Marion	(1235)	West Bend
Winnie, L.	(3542)	Wausau
Wreck, Lawrence	(3936)	Sheboygan
Zimmerman, James H.	(534-8)	Madison

Wyoming

Baxtor, George	(3611)	Laramie
Butler, Gary B.	(3611)	"
Butler, J. Ellen	(3612)	"
Carroll, Stan	(3611)	"
Cheffin, Jacob F. Jr.	(3611)	"
Crawford, David	(3611)	"
Emmerich, John M.	(3612)	"
Flory, Robert	(3612)	"
Foutin, Reed W.	(3611)	"
Gaskins, Linda L.	(3612)	"
Gield, Edwin	(3611)	"
Hahlbeck, Kenneth R.	(3611)	"
Herchel, Fred	(3611)	"
Holzinger, Phoebe	(1002)	Casper
Howard, Glenn L. Jr.	(3611)	Laramie
Kerr, Duane	(3611)	"
Kinkham, Chas Jr.	(3611)	"
LaFollitte, Leland	(3611)	"
Landon, Jack Jr.	(3612)	Laramie
McCarty, Lawrence F.	(666)	"
Moore, Jon A.	(3612)	"
Morgan, Ken	(182)	Big Piney
Murie, Margaret E.	(149)	Moose
Murphy, Larry	(3611)	Laramie
Smith, Ronald K.	(3612)	"
Sutherland, Anne	(3612)	"
Swanson, Jerry	(3611)	"
Swensen, Jo A.	(3612)	"
Swensen, Roger	(3611)	"
Varcolli, T. J.	(3611)	"
Vosselher, Robert P.	(3611)	"
Wessel, Beth E.	(3611)	"
Wessel, Louis E.	(3611)	"
Western, Jim	(3611)	"
Wiersemap, Thomas H.	(3611)	"

Individuals-Incomplete Information

Ballard, Eddie	(2339)	Tenn. Area
Biffle, Earl	(SL 86-7)	No address
Cotton, Judith	(3377)	No address
Lovelace, Eldridge	(SL 289-99)	Missouri
Roth, Linda M.	(2776)	No address
Scherrer, George M.	(SL 317-22)	
Yocum, Michael	(2613)	No Address
(Anonymous)	(382-3)	Sheboygan, Wisc.

International

	Australia	
Munro, Crawford	(3143-3221)	New South Wales, Aus.
	Mexico	
Wheeler, Margaret	(1273)	San Miguel, Guanajuato
	West Germany	
Seifert, Arndt	(203-6)	Kessenicher Str. 92

Requested Additional Hearings *

Allen, Ralph H. Jr.	(28)	Alabama
Allott, Gordon	(54,67)	Colorado
Anderson, Harold C.	(50)	"
Aspinall, Wayne N.	(36,67)	"
Barlow, Thomas	(6)	New York
Bryan, Richard W. Jr.	(17)	Louisiana
Buckley, James L.	(25,59)	New York
Butchert, J. R.	(11)	California
Christoph, Ann	(38)	"
Corlett, Everett	(41)	Colorado
Criley, Walter	(18)	Tennessee
Cross, James U.	(64)	Texas
Cruikshank, C. M.	(20)	Georgia
Dominick, Peter H.	(42-43,67)	Colorado
Dunn, Darwin L.	(48)	"
Dunn, Winfield	(29)	Tennessee
Dustin, Thomas E.	(12)	Indiana
Eagleton, Thomas F.	(58)	Missouri
Edmondson, Richard T.	(39)	Colorado

Farnsworth, Grant	(47)	Colorado
Fetcher, John R.	(63)	"
Fischer, Ronald C.	(26)	"
Fulbright, J. W.	(32)	Arkansas
Given, Sterling J.	(60-61)	Indiana
Gleason, Robert H.	(53)	Colorado
Grandy, John W. IV	(9)	Wash., D.C.
Hulsey, Andrew H.	(40)	Arkansas
Jordan, William H.	(55-57)	Colorado
Kelley, Charles D.	(30)	Alabama
Kimball, Thomas L.	(7)	Wash., D.C.
Kroesche, Elsie C.	(21)	California
Lake, Rial R.	(46)	Colorado
Lamm, Edwin	(33)	"
MacChesney, Stuart	(8)	California
Maynes, Frank E.	(52)	Colorado
McIntyre, A. H.	(34)	"

* Over 500 people requested that the Water Resources Council hold additional hearings. Most of these 500 commented on the Proposed Principles and Standards and are included in the general Index. This is a listing of those who simply requested additional hearings early in the public review period. Later several transmitted oral or written statements to the Council.

Requested Additional Hearings *

Mittelstadt, G. D.	(65)	Colorado
Moss, John E.	(19)	California
Neill, Charles R.	(44)	Colorado
Nichlos, Milton	(62)	"
Nye, William B.	(51)	Ohio
Osborne, Michael	(22)	Louisiana
Peroulis, John	(37)	Colorado
Reuss, Henry S.	(31)	Wisconsin
Rigney, David A.	(23)	Ohio
Ropchan, Sam	(27)	Indiana
Saunders, P. G.	(35)	Ohio
Scheer, Gordon	(45)	Colorado
Stern, Claire	(1-5)	New York
Sussna, Stephen	(13-15)	New Jersey
Thiele, Eberhard	(10)	California
Tunney, John V.	(24)	"
Vander Jagt, Guy	(31)	Wisconsin
Watters, Kenneth	(49)	Colorado
Wilbert, Riney F.	(66)	"
Yeo, Ron	(16)	California

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